

four plates in which the genera are illustrated by magnified figures of the terminal segments of the abdomen with the anal appendages.

The zeal with which M. De Selys has prosecuted his studies, by inspecting the collections of France and England, as well as by his researches in Germany, Switzerland and Italy, leads us to hope that he may be induced to extend his labours to the fine exotic species of this family, which are very numerous, (being distributed over every portion of the globe) and offer an almost untrodden field of investigation.

In perusing the memoir, two or three things presented themselves connected with the works of British authors; and although not very important, it will be as well to rectify them, otherwise they may lead to incorrect impressions.

P. 56. *Libellula rubicunda* is not noticed by Mr. Stephens; indeed this Linnæan species was not known in England until Mr. Curtis described and figured it in his 'British Entomology.'

P. 69. It was Mr. Dale who first discovered *Cordulia Curtisii*, and his friend Mr. Curtis subsequently captured it. Mr. Stephens never saw it alive, but is indebted to Mr. Dale for his specimens.

P. 84. Mr. Stephens took only one specimen of *Gomphus pulchellus*, which was most probably transported from the opposite coast.

P. 108. Dr. Shaw published a figure and description of *Æ. varia* in 1806.

P. 114. *Æ. rufescens* is exceedingly rare in England, and was first discovered by Mr. Dale, after whom Dr. Leach named it, but unfortunately neglected to publish his description.

P. 160. Mr. Stephens published a description of *A. xanthopterus* in his 'Illustrations' in 1836, which Mr. Curtis seems to have overlooked when he described it in the 16th volume of 'British Entomology,' under the name of *Agrion rubella*.

It is with pleasure we notice the honourable and gentlemanly feeling which has guided M. De Selys through his labours: instead of being influenced by a narrow and pernicious principle of superseding the names by which species are already known, he has endeavoured to do justice to his predecessors by adopting names according to their right of priority; an honest example, which we hope, for the welfare of science, to see followed by all our other continental neighbours.

PROCEEDINGS OF LEARNED SOCIETIES.

ENTOMOLOGICAL SOCIETY.

May 4th, 1840.—The Rev. F. W. Hope, President, in the Chair.

Mr. Yarrell exhibited some larvæ of *Tipula oleracea*, which had proved very destructive to the grass in Golden Square, London. Mr. Hope stated that lime-water, as well as water from the gas manufactories, was very beneficial in destroying them.

Mr. Newport exhibited the specimen of *Geophilus* mentioned by

four plates in which the genera are illustrated by magnified figures of the terminal segments of the abdomen with the anal appendages.

The zeal with which M. De Selys has prosecuted his studies, by inspecting the collections of France and England, as well as by his researches in Germany, Switzerland and Italy, leads us to hope that he may be induced to extend his labours to the fine exotic species of this family, which are very numerous, (being distributed over every portion of the globe) and offer an almost untrodden field of investigation.

In perusing the memoir, two or three things presented themselves connected with the works of British authors; and although not very important, it will be as well to rectify them, otherwise they may lead to incorrect impressions.

P. 56. *Libellula rubicunda* is not noticed by Mr. Stephens; indeed this Linnæan species was not known in England until Mr. Curtis described and figured it in his 'British Entomology.'

P. 69. It was Mr. Dale who first discovered *Cordulia Curtisi*, and his friend Mr. Curtis subsequently captured it. Mr. Stephens never saw it alive, but is indebted to Mr. Dale for his specimens.

P. 84. Mr. Stephens took only one specimen of *Gomphus pulchellus*, which was most probably transported from the opposite coast.

P. 108. Dr. Shaw published a figure and description of *Æ. varia* in 1806.

P. 114. *Æ. rufescens* is exceedingly rare in England, and was first discovered by Mr. Dale, after whom Dr. Leach named it, but unfortunately neglected to publish his description.

P. 160. Mr. Stephens published a description of *A. xanthopterus* in his 'Illustrations' in 1836, which Mr. Curtis seems to have overlooked when he described it in the 16th volume of 'British Entomology,' under the name of *Agrion rubella*.

It is with pleasure we notice the honourable and gentlemanly feeling which has guided M. De Selys through his labours: instead of being influenced by a narrow and pernicious principle of superseding the names by which species are already known, he has endeavoured to do justice to his predecessors by adopting names according to their right of priority; an honest example, which we hope, for the welfare of science, to see followed by all our other continental neighbours.

PROCEEDINGS OF LEARNED SOCIETIES.

ENTOMOLOGICAL SOCIETY.

May 4th, 1840.—The Rev. F. W. Hope, President, in the Chair.

Mr. Yarrell exhibited some larvæ of *Tipula oleracea*, which had proved very destructive to the grass in Golden Square, London. Mr. Hope stated that lime-water, as well as water from the gas manufactories, was very beneficial in destroying them.

Mr. Newport exhibited the specimen of *Geophilus* mentioned by

four plates in which the genera are illustrated by magnified figures of the terminal segments of the abdomen with the anal appendages.

The zeal with which M. De Selys has prosecuted his studies, by inspecting the collections of France and England, as well as by his researches in Germany, Switzerland and Italy, leads us to hope that he may be induced to extend his labours to the fine exotic species of this family, which are very numerous, (being distributed over every portion of the globe) and offer an almost untrodden field of investigation.

In perusing the memoir, two or three things presented themselves connected with the works of British authors; and although not very important, it will be as well to rectify them, otherwise they may lead to incorrect impressions.

P. 56. *Libellula rubicunda* is not noticed by Mr. Stephens; indeed this Linnæan species was not known in England until Mr. Curtis described and figured it in his 'British Entomology.'

P. 69. It was Mr. Dale who first discovered *Cordulia Curtisii*, and his friend Mr. Curtis subsequently captured it. Mr. Stephens never saw it alive, but is indebted to Mr. Dale for his specimens.

P. 84. Mr. Stephens took only one specimen of *Gomphus pulchellus*, which was most probably transported from the opposite coast.

P. 108. Dr. Shaw published a figure and description of *Æ. varia* in 1806.

P. 114. *Æ. rufescens* is exceedingly rare in England, and was first discovered by Mr. Dale, after whom Dr. Leach named it, but unfortunately neglected to publish his description.

P. 160. Mr. Stephens published a description of *A. xanthopterus* in his 'Illustrations' in 1836, which Mr. Curtis seems to have overlooked when he described it in the 16th volume of 'British Entomology,' under the name of *Agrion rubella*.

It is with pleasure we notice the honourable and gentlemanly feeling which has guided M. De Selys through his labours: instead of being influenced by a narrow and pernicious principle of superseding the names by which species are already known, he has endeavoured to do justice to his predecessors by adopting names according to their right of priority; an honest example, which we hope, for the welfare of science, to see followed by all our other continental neighbours.

PROCEEDINGS OF LEARNED SOCIETIES.

ENTOMOLOGICAL SOCIETY.

May 4th, 1840.—The Rev. F. W. Hope, President, in the Chair.

Mr. Yarrell exhibited some larvæ of *Tipula oleracea*, which had proved very destructive to the grass in Golden Square, London. Mr. Hope stated that lime-water, as well as water from the gas manufactories, was very beneficial in destroying them.

Mr. Newport exhibited the specimen of *Geophilus* mentioned by

him at the last meeting, and which was nearly two inches long. The same gentleman exhibited a specimen of the pupa of *Sphinx Ligustri*, the head-case of which he had repeatedly disturbed during its change from the larva to the pupa state, and in consequence of which, as it appeared to him, the tongue-case was not developed, so that the pupa resembled that of a *Smerinthus* instead of *Sphinx*.

Mr. Hope exhibited a new species of *Phyllium* from the Neilgherries, which he proposed to name *P. Robertsonii* after Mr. Robertson, who had presented a large collection of insects from that country to the Society at the last meeting.

Mr. Shuckard having read some extracts from his memoir on the family *Dorylidæ*, since published in the Annals of Natural History, Mr. W. W. Saunders stated that one of his specimens of *Dorylus orientalis* had been captured in the sunshine, but that the other had entered a lighted room in the evening. Mr. Westwood also objected to several of the views entertained by Mr. Shuckard. (See his Memoir on *Typhlopone*, since published in the Annals of Natural History.)

Mr. Westwood also read some "Notes on African Entomology," amongst which the almost complete absence of *Homopterous* insects on that continent, and the general uniformity of the insects throughout the entire continent, and the resemblance of many of them to Indian forms, were especially dwelt upon. The Rev. F. W. Hope also entered into a detail of the reasons which had induced him to reject the plans which had been proposed for the geographical distribution of insects, and to consider the subject as primarily divisible according to the respective hemispheres. He however considered that the northern parts of America and of the old world formed but one entomo-geographical region, which he would call Boreal. The other parts of each hemisphere exhibit a secondary division. The entomology of Africa was well characterized by its uniform character, although that of North Africa resembled that of South Europe, and that of South East Africa that of Asia. Mr. Waterhouse also made a variety of observations on the same subject, considering the two hemispheres as primarily distinct.

June 1st.—The Rev. W. Kirby, M.A., F.R.S., Honorary President, in the Chair.

Mr. Samuel Stevens exhibited a new British genus of *Carabideous Coleoptera* allied to *Pterostichus*, captured by Mr. Leplastrier near Dover.

Mr. Ingpen, A.L.S., exhibited a mass of minute cylindrical cocoons arranged close together like a piece of honey-comb in miniature, being formed by a small species of *Ichneumonidæ* (*Hemiteles* —?), the upper end of many of which had an aperture, whilst in others the aperture was at the opposite end. They were found on the surface of the ground in his garden at Chelsea.

The Rev. F. W. Hope exhibited several new and rare *Coleoptera* and *Diptera* from New Holland.

Mr. W. Saunders exhibited the larva of a species of *Oiketicus* from the East Indies.

him at the last meeting, and which was nearly two inches long. The same gentleman exhibited a specimen of the pupa of *Sphinx Ligustri*, the head-case of which he had repeatedly disturbed during its change from the larva to the pupa state, and in consequence of which, as it appeared to him, the tongue-case was not developed, so that the pupa resembled that of a *Smerinthus* instead of *Sphinx*.

Mr. Hope exhibited a new species of *Phyllium* from the Neilgherries, which he proposed to name *P. Robertsonii* after Mr. Robertson, who had presented a large collection of insects from that country to the Society at the last meeting.

Mr. Shuckard having read some extracts from his memoir on the family *Dorylidæ*, since published in the Annals of Natural History, Mr. W. W. Saunders stated that one of his specimens of *Dorylus orientalis* had been captured in the sunshine, but that the other had entered a lighted room in the evening. Mr. Westwood also objected to several of the views entertained by Mr. Shuckard. (See his Memoir on *Typhlopone*, since published in the Annals of Natural History.)

Mr. Westwood also read some "Notes on African Entomology," amongst which the almost complete absence of *Homopterous* insects on that continent, and the general uniformity of the insects throughout the entire continent, and the resemblance of many of them to Indian forms, were especially dwelt upon. The Rev. F. W. Hope also entered into a detail of the reasons which had induced him to reject the plans which had been proposed for the geographical distribution of insects, and to consider the subject as primarily divisible according to the respective hemispheres. He however considered that the northern parts of America and of the old world formed but one entomo-geographical region, which he would call Boreal. The other parts of each hemisphere exhibit a secondary division. The entomology of Africa was well characterized by its uniform character, although that of North Africa resembled that of South Europe, and that of South East Africa that of Asia. Mr. Waterhouse also made a variety of observations on the same subject, considering the two hemispheres as primarily distinct.

June 1st.—The Rev. W. Kirby, M.A., F.R.S., Honorary President, in the Chair.

Mr. Samuel Stevens exhibited a new British genus of *Carabideous Coleoptera* allied to *Pterostichus*, captured by Mr. Leplastrier near Dover.

Mr. Ingpen, A.L.S., exhibited a mass of minute cylindrical cocoons arranged close together like a piece of honey-comb in miniature, being formed by a small species of *Ichneumonidæ* (*Hemiteles* —?), the upper end of many of which had an aperture, whilst in others the aperture was at the opposite end. They were found on the surface of the ground in his garden at Chelsea.

The Rev. F. W. Hope exhibited several new and rare *Coleoptera* and *Diptera* from New Holland.

Mr. W. Saunders exhibited the larva of a species of *Oiketicus* from the East Indies.

him at the last meeting, and which was nearly two inches long. The same gentleman exhibited a specimen of the pupa of *Sphinx Ligustri*, the head-case of which he had repeatedly disturbed during its change from the larva to the pupa state, and in consequence of which, as it appeared to him, the tongue-case was not developed, so that the pupa resembled that of a *Smerinthus* instead of *Sphinx*.

Mr. Hope exhibited a new species of *Phyllium* from the Neilgherries, which he proposed to name *P. Robertsonii* after Mr. Robertson, who had presented a large collection of insects from that country to the Society at the last meeting.

Mr. Shuckard having read some extracts from his memoir on the family *Dorylidæ*, since published in the Annals of Natural History, Mr. W. W. Saunders stated that one of his specimens of *Dorylus orientalis* had been captured in the sunshine, but that the other had entered a lighted room in the evening. Mr. Westwood also objected to several of the views entertained by Mr. Shuckard. (See his Memoir on *Typhlopone*, since published in the Annals of Natural History.)

Mr. Westwood also read some "Notes on African Entomology," amongst which the almost complete absence of *Homopterous* insects on that continent, and the general uniformity of the insects throughout the entire continent, and the resemblance of many of them to Indian forms, were especially dwelt upon. The Rev. F. W. Hope also entered into a detail of the reasons which had induced him to reject the plans which had been proposed for the geographical distribution of insects, and to consider the subject as primarily divisible according to the respective hemispheres. He however considered that the northern parts of America and of the old world formed but one entomo-geographical region, which he would call Boreal. The other parts of each hemisphere exhibit a secondary division. The entomology of Africa was well characterized by its uniform character, although that of North Africa resembled that of South Europe, and that of South East Africa that of Asia. Mr. Waterhouse also made a variety of observations on the same subject, considering the two hemispheres as primarily distinct.

June 1st.—The Rev. W. Kirby, M.A., F.R.S., Honorary President, in the Chair.

Mr. Samuel Stevens exhibited a new British genus of *Carabideous Coleoptera* allied to *Pterostichus*, captured by Mr. Leplastrier near Dover.

Mr. Ingpen, A.L.S., exhibited a mass of minute cylindrical cocoons arranged close together like a piece of honey-comb in miniature, being formed by a small species of *Ichneumonidæ* (*Hemiteles* —?), the upper end of many of which had an aperture, whilst in others the aperture was at the opposite end. They were found on the surface of the ground in his garden at Chelsea.

The Rev. F. W. Hope exhibited several new and rare *Coleoptera* and *Diptera* from New Holland.

Mr. W. Saunders exhibited the larva of a species of *Oiketicus* from the East Indies.

Mr. Frederick Smith exhibited the sexes of six species of *Andrena*, which he had observed *in copuld*, thus proving the specific identity of the different sexes in these species of this troublesome genus; amongst them was *Andrena fulva*, which was proved to be the female of *Andrena armata*, and *A. Clerckella*.

Mr. Westwood exhibited a specimen of *Myrmecocystus mexicanus*, Wesm., a species of ant, some of the neuters of which are of the ordinary form, whilst in others the abdomen is immensely swollen and globular: these latter individuals are described as never quitting the nest, and as making a kind of honey. He also observed upon the different kinds or degrees of development noticed among *Hymenopterous* insects, especially the several kinds of neuters of the hive-bees, called by Huber, &c. black-bees, nurser-bees, wax-workers, &c. Messrs. Waterhouse and Newport doubted however whether there were any real distinctions between these kinds of individuals, as they had never been able to discover any specimens according with such descriptions. Mr. Shuckard also stated his opinion that there was never more than one kind of neuter among the ants. Mr. F. Smith on the contrary stated that he had constantly found two kinds of neuters in the nest of the *Formica sanguinea*.

The following memoir was read.

Description of a subgenus of Coleopterous insects closely allied to *Carabus*. By G. R. Waterhouse, Esq.

The insect here described agrees in the majority of its characters with *Carabus*, but differs in having the thorax smooth and convex, without reflected margins, and *foveæ* at the posterior angles, the antennæ incrassated in the middle, with the 3rd joint long, the head large and nearly as broad as the thorax, the elytra depressed and the legs long; although destitute of the velvet-like soles to the fore tarsi which distinguish the male *Carabi*, the anterior tarsi are not dilated. The name proposed for this insect is

Aplothorax Burchellii, W. *Niger, thorace cordiformi anticè et posticè truncato, angulisque anticis et posticis rotundatis, suprà lævi et convexo; elytris punctato-striatis, striis punctisque crebris at non profundis; inter strias 3 et 4 et 7 et 8 punctis majoribus cum illis striis confluentibus.* Long. corp. lin. 15½. Inhabits St. Helena. W. Burchell, Esq. In Mus. D. Hope.

July 6th.—The Rev. F. W. Hope, President, in the Chair.

The President exhibited part of a splendid collection of *Coleoptera* received by him from Mexico.

Mr. Westwood exhibited portions of the branches of an apple tree bored into by the larva of *Zeuzera Æsculi*, communicated by Dr. Lindley.

Mr. Raddon exhibited a beautiful *Lamia* from the Gold Coast of Africa, as well as a species of *Noctua* and *Cerura* which he had obtained from Mr. Bradford, of Bewdley, and which he believed to be new to the British lists of insects. He also stated that *Lamia textor* had recently been taken at Walham Green.

Mr. Marshall stated that Mr. Doubleday had informed him that

Mr. Frederick Smith exhibited the sexes of six species of *Andrena*, which he had observed *in copuld*, thus proving the specific identity of the different sexes in these species of this troublesome genus; amongst them was *Andrena fulva*, which was proved to be the female of *Andrena armata*, and *A. Clerckella*.

Mr. Westwood exhibited a specimen of *Myrmecocystus mexicanus*, Wesm., a species of ant, some of the neuters of which are of the ordinary form, whilst in others the abdomen is immensely swollen and globular: these latter individuals are described as never quitting the nest, and as making a kind of honey. He also observed upon the different kinds or degrees of development noticed among *Hymenopterous* insects, especially the several kinds of neuters of the hive-bees, called by Huber, &c. black-bees, nurser-bees, wax-workers, &c. Messrs. Waterhouse and Newport doubted however whether there were any real distinctions between these kinds of individuals, as they had never been able to discover any specimens according with such descriptions. Mr. Shuckard also stated his opinion that there was never more than one kind of neuter among the ants. Mr. F. Smith on the contrary stated that he had constantly found two kinds of neuters in the nest of the *Formica sanguinea*.

The following memoir was read.

Description of a subgenus of Coleopterous insects closely allied to *Carabus*. By G. R. Waterhouse, Esq.

The insect here described agrees in the majority of its characters with *Carabus*, but differs in having the thorax smooth and convex, without reflected margins, and *foveæ* at the posterior angles, the antennæ incrassated in the middle, with the 3rd joint long, the head large and nearly as broad as the thorax, the elytra depressed and the legs long; although destitute of the velvet-like soles to the fore tarsi which distinguish the male *Carabi*, the anterior tarsi are not dilated. The name proposed for this insect is

Aplothorax Burchellii, W. *Niger, thorace cordiformi anticè et posticè truncato, angulisque anticis et posticis rotundatis, suprà lævi et convexo; elytris punctato-striatis, striis punctisque crebris at non profundis; inter strias 3 et 4 et 7 et 8 punctis majoribus cum illis striis confluentibus.* Long. corp. lin. 15½. Inhabits St. Helena. W. Burchell, Esq. In Mus. D. Hope.

July 6th.—The Rev. F. W. Hope, President, in the Chair.

The President exhibited part of a splendid collection of *Coleoptera* received by him from Mexico.

Mr. Westwood exhibited portions of the branches of an apple tree bored into by the larva of *Zeuzera Æsculi*, communicated by Dr. Lindley.

Mr. Raddon exhibited a beautiful *Lamia* from the Gold Coast of Africa, as well as a species of *Noctua* and *Cerura* which he had obtained from Mr. Bradford, of Bewdley, and which he believed to be new to the British lists of insects. He also stated that *Lamia textor* had recently been taken at Walham Green.

Mr. Marshall stated that Mr. Doubleday had informed him that

Mr. Frederick Smith exhibited the sexes of six species of *Andrena*, which he had observed *in copuld*, thus proving the specific identity of the different sexes in these species of this troublesome genus; amongst them was *Andrena fulva*, which was proved to be the female of *Andrena armata*, and *A. Clerckella*.

Mr. Westwood exhibited a specimen of *Myrmecocystus mexicanus*, Wesm., a species of ant, some of the neuters of which are of the ordinary form, whilst in others the abdomen is immensely swollen and globular: these latter individuals are described as never quitting the nest, and as making a kind of honey. He also observed upon the different kinds or degrees of development noticed among *Hymenopterous* insects, especially the several kinds of neuters of the hive-bees, called by Huber, &c. black-bees, nurser-bees, wax-workers, &c. Messrs. Waterhouse and Newport doubted however whether there were any real distinctions between these kinds of individuals, as they had never been able to discover any specimens according with such descriptions. Mr. Shuckard also stated his opinion that there was never more than one kind of neuter among the ants. Mr. F. Smith on the contrary stated that he had constantly found two kinds of neuters in the nest of the *Formica sanguinea*.

The following memoir was read.

Description of a subgenus of Coleopterous insects closely allied to *Carabus*. By G. R. Waterhouse, Esq.

The insect here described agrees in the majority of its characters with *Carabus*, but differs in having the thorax smooth and convex, without reflected margins, and *foveæ* at the posterior angles, the antennæ incrassated in the middle, with the 3rd joint long, the head large and nearly as broad as the thorax, the elytra depressed and the legs long; although destitute of the velvet-like soles to the fore tarsi which distinguish the male *Carabi*, the anterior tarsi are not dilated. The name proposed for this insect is

Aplothorax Burchellii, W. *Niger, thorace cordiformi anticè et posticè truncato, angulisque anticis et posticis rotundatis, suprà lævi et convexo; elytris punctato-striatis, striis punctisque crebris at non profundis; inter strias 3 et 4 et 7 et 8 punctis majoribus cum illis striis confluentibus.* Long. corp. lin. 15½. Inhabits St. Helena. W. Burchell, Esq. In Mus. D. Hope.

July 6th.—The Rev. F. W. Hope, President, in the Chair.

The President exhibited part of a splendid collection of *Coleoptera* received by him from Mexico.

Mr. Westwood exhibited portions of the branches of an apple tree bored into by the larva of *Zeuzera Æsculi*, communicated by Dr. Lindley.

Mr. Raddon exhibited a beautiful *Lamia* from the Gold Coast of Africa, as well as a species of *Noctua* and *Cerura* which he had obtained from Mr. Bradford, of Bewdley, and which he believed to be new to the British lists of insects. He also stated that *Lamia textor* had recently been taken at Walham Green.

Mr. Marshall stated that Mr. Doubleday had informed him that

Sesia Bombyliiformis on emerging from the pupa has the transparent part of the wings entirely clothed with scales.

A paper was read by Mr. Westwood consisting of suggestions for making collections of insects abroad, especially with reference to their physiological and æconomical peculiarities, which led to an extended discussion, in which Messrs. Hope, Waterhouse, Marshall, Raddon, and others, took part, and by whom the following suggestions were made.

In packing insects captured abroad, where there might not be convenience for pinning them, it is preferable to use thin layers of linen rag instead of cotton wool, the latter catching the unguis of the insects, and requiring very great care in unpacking. Sand in bottles is also objectionable, for if the bottles were not quite full, or any holes were accidentally made in the cork, whereby the sand partially escaped, the remainder by shaking about would damage the insects. Moss or bits of paper were also a good substitute for cotton wool. Camphor, or pepper as its substitute, should be placed in the bottles or boxes of dried insects. Such hard insects as beetles, &c., should be killed by being placed in a bottle and immersed in boiling water, which preserves their colours much better than by placing them in spirits. The leaves of laurel, or some other plant of the same nature, when bruised and placed in a box of insects, would also immediately kill them, but this process hardened the muscles. *Lepidopterous* insects may safely be preserved by folding their wings together, with the antennæ turned back between them, and then lapped up in a piece of paper folded flat in the shape of a triangle. Considerable collections had been received in this manner. The spines of the *Acacia* were a good substitute for pins. Tin canisters should be used instead of wooden boxes where practicable, in order to prevent the attacks of the white ants and cock roaches: when filled, the tops should be resined down. Soda-water bottles were found to be of a much more commodious form than square spirit bottles. Rum and arrack, on account of their saccharine qualities, ought not to be used. It was also better to place layers of tow between the insects in spirits, and to put but few of the latter together, as when much shaken they easily broke to pieces.

August 3rd.—The Rev. F. W. Hope, President, in the Chair.

The President exhibited various new exotic *Coleoptera*, including a new species of *Trochoideus* and one of *Chiusognathus*, both from New Granada.

Mr. A. White exhibited several interesting insects from St^a Fé de Bogota, including new species of *Labidus*, *Pelecinius*, &c.

Mr. Westwood stated that he had recently observed a great number of the empty cocoons of the small garden ant sticking upon the leaves of a nectarine tree trained against a wall, at a considerable height from the ground, there being nests of the same species at the foot of the wall.

The following memoirs were read:—

: Observations on the genus *Typhlopone*, and descriptions of several

Sesia Bombyliiformis on emerging from the pupa has the transparent part of the wings entirely clothed with scales.

A paper was read by Mr. Westwood consisting of suggestions for making collections of insects abroad, especially with reference to their physiological and æconomical peculiarities, which led to an extended discussion, in which Messrs. Hope, Waterhouse, Marshall, Raddon, and others, took part, and by whom the following suggestions were made.

In packing insects captured abroad, where there might not be convenience for pinning them, it is preferable to use thin layers of linen rag instead of cotton wool, the latter catching the unguis of the insects, and requiring very great care in unpacking. Sand in bottles is also objectionable, for if the bottles were not quite full, or any holes were accidentally made in the cork, whereby the sand partially escaped, the remainder by shaking about would damage the insects. Moss or bits of paper were also a good substitute for cotton wool. Camphor, or pepper as its substitute, should be placed in the bottles or boxes of dried insects. Such hard insects as beetles, &c., should be killed by being placed in a bottle and immersed in boiling water, which preserves their colours much better than by placing them in spirits. The leaves of laurel, or some other plant of the same nature, when bruised and placed in a box of insects, would also immediately kill them, but this process hardened the muscles. *Lepidopterous* insects may safely be preserved by folding their wings together, with the antennæ turned back between them, and then lapped up in a piece of paper folded flat in the shape of a triangle. Considerable collections had been received in this manner. The spines of the *Acacia* were a good substitute for pins. Tin canisters should be used instead of wooden boxes where practicable, in order to prevent the attacks of the white ants and cock roaches: when filled, the tops should be resined down. Soda-water bottles were found to be of a much more commodious form than square spirit bottles. Rum and arrack, on account of their saccharine qualities, ought not to be used. It was also better to place layers of tow between the insects in spirits, and to put but few of the latter together, as when much shaken they easily broke to pieces.

August 3rd.—The Rev. F. W. Hope, President, in the Chair.

The President exhibited various new exotic *Coleoptera*, including a new species of *Trochoideus* and one of *Chiusognathus*, both from New Granada.

Mr. A. White exhibited several interesting insects from St^a Fé de Bogota, including new species of *Labidus*, *Pelecinius*, &c.

Mr. Westwood stated that he had recently observed a great number of the empty cocoons of the small garden ant sticking upon the leaves of a nectarine tree trained against a wall, at a considerable height from the ground, there being nests of the same species at the foot of the wall.

The following memoirs were read:—

: Observations on the genus *Typhlopone*, and descriptions of several

Sesia Bombyliiformis on emerging from the pupa has the transparent part of the wings entirely clothed with scales.

A paper was read by Mr. Westwood consisting of suggestions for making collections of insects abroad, especially with reference to their physiological and æconomical peculiarities, which led to an extended discussion, in which Messrs. Hope, Waterhouse, Marshall, Raddon, and others, took part, and by whom the following suggestions were made.

In packing insects captured abroad, where there might not be convenience for pinning them, it is preferable to use thin layers of linen rag instead of cotton wool, the latter catching the unguis of the insects, and requiring very great care in unpacking. Sand in bottles is also objectionable, for if the bottles were not quite full, or any holes were accidentally made in the cork, whereby the sand partially escaped, the remainder by shaking about would damage the insects. Moss or bits of paper were also a good substitute for cotton wool. Camphor, or pepper as its substitute, should be placed in the bottles or boxes of dried insects. Such hard insects as beetles, &c., should be killed by being placed in a bottle and immersed in boiling water, which preserves their colours much better than by placing them in spirits. The leaves of laurel, or some other plant of the same nature, when bruised and placed in a box of insects, would also immediately kill them, but this process hardened the muscles. *Lepidopterous* insects may safely be preserved by folding their wings together, with the antennæ turned back between them, and then lapped up in a piece of paper folded flat in the shape of a triangle. Considerable collections had been received in this manner. The spines of the *Acacia* were a good substitute for pins. Tin canisters should be used instead of wooden boxes where practicable, in order to prevent the attacks of the white ants and cock roaches: when filled, the tops should be resined down. Soda-water bottles were found to be of a much more commodious form than square spirit bottles. Rum and arrack, on account of their saccharine qualities, ought not to be used. It was also better to place layers of tow between the insects in spirits, and to put but few of the latter together, as when much shaken they easily broke to pieces.

August 3rd.—The Rev. F. W. Hope, President, in the Chair.

The President exhibited various new exotic *Coleoptera*, including a new species of *Trochoideus* and one of *Chiusognathus*, both from New Granada.

Mr. A. White exhibited several interesting insects from St^a Fé de Bogota, including new species of *Labidus*, *Pelecinius*, &c.

Mr. Westwood stated that he had recently observed a great number of the empty cocoons of the small garden ant sticking upon the leaves of a nectarine tree trained against a wall, at a considerable height from the ground, there being nests of the same species at the foot of the wall.

The following memoirs were read:—

: Observations on the genus *Typhlopone*, and descriptions of several

other genera of ants. By J. O. Westwood, F.L.S., since published in the Annals of Natural History.

On a new species of *Dynastes* and other *Coleoptera*. By the Rev. F. W. Hope.

Dynastes Jupiter, H. *Scutellatus, thoracis cornu medio maximo et incurvo subtus barbato, cornubus duobus lateralibus thoracis longitudine, rectis; thoracis dorso in cornu longissimo absque dente in medio producto, cornu capitis porrecto recurvo, dimidio antico suprâ multidentato.* Long. corp. unc. 4. lin. 10. Inhabits New Granada. Allied to *D. Neptunus*, Sch.

Hexaphyllum Westwoodii, H. *Nigrum, antennarum clava brunnea, thorace profundè rugoso-sulcato, elytris carinatis interstitiis reticulatis.* Long. corp. lin. $6\frac{1}{3}$. Inhabits New Granada.

Pelidnota Victorina, H. *Flavo-viridis, thorace fusco-aurantio, suturâ scutelloque concoloribus; elytris pallidè viridibus maculis fusco-aurantiis aspersis, corpore subtus saturatiore, sterno trochanteribus geniculis tarsisque nigro-bronzeis.* Long. corp. lin. 10. Inhabits Mexico.

Pelidnota Adelaida, H. *Viridis, scutello aurato nitido, elytris fusco-bronzeis, lineis viridi-auratis alternantibus, colore bronzeo-ochraceo inquinatis.* Long. corp. lin. 14. Inhabits Mexico.

Pelidnota auripes, H. *Tota prasina, pedibus auratis.* Long. corp. lin. 12. Inhabits Mexico.

A Letter was read from Alexander Burn, Esq., dated Kaiva, Gujerat, December 6th, 1839, addressed to the president of the Entomological Society, accompanying a box containing two Indian species of blister-flies which abound at Gujerat, and which he had found to be equal as vesicants to the Spanish fly: indeed when used fresh a liquor *Lyttæ* of greater strength and activity can be obtained from them. The writer had called the attention of the Bombay Government to these insects as objects indigenous to India, which might be worthy of attention as articles of commerce. The first, *Lytta gigas*, Fab., appears early in the season of the monsoon (August and September), creeping along the ground, seldom using its wings, and feeding on the young tender shoots of grasses. The other species, *Mylabris pustulata*, Blbg. flies about all day and feeds on the flowers of various plants, especially the esculent *Cucurbitaceæ* and *Hibiscus esculentus* and *cannabinus*, abounding in some seasons to such an extent as to prove extremely destructive to the plants, hardly a single blossom escaping them. To the market gardeners they are therefore a great nuisance, and as the objection to destroy animal life is extremely rank in this part of India, the only plan adopted to get rid of them is picking them with the hand from the plants into large earthen vessels, and sending them to a distance of a mile or two to be set free in any wild or uncultivated spot.

In reference to the above letter Mr. G. Newport stated that he had ascertained that *Meloë Proscarabæus*, the common English species, was highly diuretic, and it was suggested that as the two species of

other genera of ants. By J. O. Westwood, F.L.S., since published in the Annals of Natural History.

On a new species of *Dynastes* and other *Coleoptera*. By the Rev. F. W. Hope.

Dynastes Jupiter, H. *Scutellatus, thoracis cornu medio maximo et incurvo subtus barbato, cornubus duobus lateralibus thoracis longitudine, rectis; thoracis dorso in cornu longissimo absque dente in medio producto, cornu capitis porrecto recurvo, dimidio antico suprâ multidentato.* Long. corp. unc. 4. lin. 10. Inhabits New Granada. Allied to *D. Neptunus*, Sch.

Hexaphyllum Westwoodii, H. *Nigrum, antennarum clava brunnea, thorace profundè rugoso-sulcato, elytris carinatis interstitiis reticulatis.* Long. corp. lin. $6\frac{1}{3}$. Inhabits New Granada.

Pelidnota Victorina, H. *Flavo-viridis, thorace fusco-aurantio, suturâ scutelloque concoloribus; elytris pallidè viridibus maculis fusco-aurantiis aspersis, corpore subtus saturatiore, sterno trochanteribus geniculis tarsisque nigro-bronzeis.* Long. corp. lin. 10. Inhabits Mexico.

Pelidnota Adelaida, H. *Viridis, scutello aurato nitido, elytris fusco-bronzeis, lineis viridi-auratis alternantibus, colore bronzeo-ochraceo inquinatis.* Long. corp. lin. 14. Inhabits Mexico.

Pelidnota auripes, H. *Tota prasina, pedibus auratis.* Long. corp. lin. 12. Inhabits Mexico.

A Letter was read from Alexander Burn, Esq., dated Kaiva, Gujerat, December 6th, 1839, addressed to the president of the Entomological Society, accompanying a box containing two Indian species of blister-flies which abound at Gujerat, and which he had found to be equal as vesicants to the Spanish fly: indeed when used fresh a liquor *Lyttæ* of greater strength and activity can be obtained from them. The writer had called the attention of the Bombay Government to these insects as objects indigenous to India, which might be worthy of attention as articles of commerce. The first, *Lytta gigas*, Fab., appears early in the season of the monsoon (August and September), creeping along the ground, seldom using its wings, and feeding on the young tender shoots of grasses. The other species, *Mylabris pustulata*, Blbg. flies about all day and feeds on the flowers of various plants, especially the esculent *Cucurbitaceæ* and *Hibiscus esculentus* and *cannabinus*, abounding in some seasons to such an extent as to prove extremely destructive to the plants, hardly a single blossom escaping them. To the market gardeners they are therefore a great nuisance, and as the objection to destroy animal life is extremely rank in this part of India, the only plan adopted to get rid of them is picking them with the hand from the plants into large earthen vessels, and sending them to a distance of a mile or two to be set free in any wild or uncultivated spot.

In reference to the above letter Mr. G. Newport stated that he had ascertained that *Meloë Proscarabæus*, the common English species, was highly diuretic, and it was suggested that as the two species of

other genera of ants. By J. O. Westwood, F.L.S., since published in the Annals of Natural History.

On a new species of *Dynastes* and other *Coleoptera*. By the Rev. F. W. Hope.

Dynastes Jupiter, H. *Scutellatus, thoracis cornu medio maximo et incurvo subtus barbato, cornubus duobus lateralibus thoracis longitudine, rectis; thoracis dorso in cornu longissimo absque dente in medio producto, cornu capitis porrecto recurvo, dimidio antico suprâ multidentato.* Long. corp. unc. 4. lin. 10. Inhabits New Granada. Allied to *D. Neptunus*, Sch.

Hexaphyllum Westwoodii, H. *Nigrum, antennarum clava brunnea, thorace profundè rugoso-sulcato, elytris carinatis interstitiis reticulatis.* Long. corp. lin. $6\frac{1}{3}$. Inhabits New Granada.

Pelidnota Victorina, H. *Flavo-viridis, thorace fusco-aurantio, suturâ scutelloque concoloribus; elytris pallidè viridibus maculis fusco-aurantiis aspersis, corpore subtus saturatiore, sterno trochanteribus geniculis tarsisque nigro-bronzeis.* Long. corp. lin. 10. Inhabits Mexico.

Pelidnota Adelaida, H. *Viridis, scutello aurato nitido, elytris fusco-bronzeis, lineis viridi-auratis alternantibus, colore bronzeo-ochraceo inquinatis.* Long. corp. lin. 14. Inhabits Mexico.

Pelidnota auripes, H. *Tota prasina, pedibus auratis.* Long. corp. lin. 12. Inhabits Mexico.

A Letter was read from Alexander Burn, Esq., dated Kaiva, Gujerat, December 6th, 1839, addressed to the president of the Entomological Society, accompanying a box containing two Indian species of blister-flies which abound at Gujerat, and which he had found to be equal as vesicants to the Spanish fly: indeed when used fresh a liquor *Lyttæ* of greater strength and activity can be obtained from them. The writer had called the attention of the Bombay Government to these insects as objects indigenous to India, which might be worthy of attention as articles of commerce. The first, *Lytta gigas*, Fab., appears early in the season of the monsoon (August and September), creeping along the ground, seldom using its wings, and feeding on the young tender shoots of grasses. The other species, *Mylabris pustulata*, Blbg. flies about all day and feeds on the flowers of various plants, especially the esculent *Cucurbitaceæ* and *Hibiscus esculentus* and *cannabinus*, abounding in some seasons to such an extent as to prove extremely destructive to the plants, hardly a single blossom escaping them. To the market gardeners they are therefore a great nuisance, and as the objection to destroy animal life is extremely rank in this part of India, the only plan adopted to get rid of them is picking them with the hand from the plants into large earthen vessels, and sending them to a distance of a mile or two to be set free in any wild or uncultivated spot.

In reference to the above letter Mr. G. Newport stated that he had ascertained that *Meloë Proscarabæus*, the common English species, was highly diuretic, and it was suggested that as the two species of

Indian *Cantharidæ* possessed very powerful medicinal properties and were extremely abundant, it would be advisable that they should be collected in quantities and imported into England, so as to supersede the use of the common blister-fly.

September 7th.—Thomas Marshall, Esq., in the Chair.

In addition to the donations of entomological works, a collection of insects from New South Wales was presented to the Society by J. S. Bowerbank, Esq.

Mr. Smith exhibited specimens of *Miscus campestris* and *Amophila vulgaris*, which had been taken in copuld, and whence he was led to consider the former only as a variety of the latter species. He also exhibited a new British species of *Nomada*, and various rare British *Andrenæ*.

Mr. Walton exhibited three new British species of the *Curculio-nideous* genus *Magdalis*.

October 5th.—J. Walton, Esq., V.P. in the Chair.

Mr. Sells exhibited a number of illustrations of the natural history of various species of insects, including nests of the *Osmia cærulescens*, numerous kinds of galls formed by *Cecidomyiæ*, &c., with their parasites; *Chlorops pumilionis*, in various states, the larvæ of which had proved very destructive this year near Kingston, and had entirely destroyed several acres of rye.

Mr. Westwood exhibited a remarkable gall brought from Manilla by Mr. Cuming, the outer covering of which consisted of exceedingly fine filaments, which crumbled to powder on being touched, and the inhabitant of which was a species of *Cynips*; also a cocoon made by a large *Saturnia*, the chrysalis of which was still inclosed and filled with eggs, although the antennæ-cases were so broad as to lead to the supposition that the specimen was a male.

Mr. Ingpen exhibited the cocoon of *Cetonia aurata*, the larva of which he had then recently found at the root of a tree, containing a living imago; likewise another mass of the cocoons of the *Hemiteles* sp.? found attached to a lilac branch.

Mr. Smith exhibited various species of British ants of the different sexes, showing the two distinct kinds of neuters of *Formica sanguinea*, in the nest of which he had also found *Formica fusca*, *F. cunicularia*, and *Myrmica rubra*: also a piece of the stump of an oak tree burrowed into in all directions and inhabited by *Formica rufa*.

Mr. Stephens mentioned a remarkable instance of the occurrence of the autumnal disease of flies, having observed that a great number of the blades of a tall grass (*Sesleria cærulea*) growing at the sides of the path leading through Ongar Park Wood in Essex, for about fifty yards were covered with hundreds of dead specimens of *Cheilosia gracilis*, many of which he exhibited still attached to the stems of the grass: he also observed one of the flies fly languidly down, settle on the grass, and die.

Mr. Westwood exhibited drawings of the veins of the wings of various genera of British butterflies, commenting upon the modifica-

Indian *Cantharidæ* possessed very powerful medicinal properties and were extremely abundant, it would be advisable that they should be collected in quantities and imported into England, so as to supersede the use of the common blister-fly.

September 7th.—Thomas Marshall, Esq., in the Chair.

In addition to the donations of entomological works, a collection of insects from New South Wales was presented to the Society by J. S. Bowerbank, Esq.

Mr. Smith exhibited specimens of *Miscus campestris* and *Amophila vulgaris*, which had been taken in copuld, and whence he was led to consider the former only as a variety of the latter species. He also exhibited a new British species of *Nomada*, and various rare British *Andrenæ*.

Mr. Walton exhibited three new British species of the *Curculio-nideous* genus *Magdalis*.

October 5th.—J. Walton, Esq., V.P. in the Chair.

Mr. Sells exhibited a number of illustrations of the natural history of various species of insects, including nests of the *Osmia cærulescens*, numerous kinds of galls formed by *Cecidomyiæ*, &c., with their parasites; *Chlorops pumilionis*, in various states, the larvæ of which had proved very destructive this year near Kingston, and had entirely destroyed several acres of rye.

Mr. Westwood exhibited a remarkable gall brought from Manilla by Mr. Cuming, the outer covering of which consisted of exceedingly fine filaments, which crumbled to powder on being touched, and the inhabitant of which was a species of *Cynips*; also a cocoon made by a large *Saturnia*, the chrysalis of which was still inclosed and filled with eggs, although the antennæ-cases were so broad as to lead to the supposition that the specimen was a male.

Mr. Ingpen exhibited the cocoon of *Cetonia aurata*, the larva of which he had then recently found at the root of a tree, containing a living imago; likewise another mass of the cocoons of the *Hemiteles* sp.? found attached to a lilac branch.

Mr. Smith exhibited various species of British ants of the different sexes, showing the two distinct kinds of neuters of *Formica sanguinea*, in the nest of which he had also found *Formica fusca*, *F. cunicularia*, and *Myrmica rubra*: also a piece of the stump of an oak tree burrowed into in all directions and inhabited by *Formica rufa*.

Mr. Stephens mentioned a remarkable instance of the occurrence of the autumnal disease of flies, having observed that a great number of the blades of a tall grass (*Sesleria cærulea*) growing at the sides of the path leading through Ongar Park Wood in Essex, for about fifty yards were covered with hundreds of dead specimens of *Cheilosia gracilis*, many of which he exhibited still attached to the stems of the grass: he also observed one of the flies fly languidly down, settle on the grass, and die.

Mr. Westwood exhibited drawings of the veins of the wings of various genera of British butterflies, commenting upon the modifica-

Indian *Cantharidæ* possessed very powerful medicinal properties and were extremely abundant, it would be advisable that they should be collected in quantities and imported into England, so as to supersede the use of the common blister-fly.

September 7th.—Thomas Marshall, Esq., in the Chair.

In addition to the donations of entomological works, a collection of insects from New South Wales was presented to the Society by J. S. Bowerbank, Esq.

Mr. Smith exhibited specimens of *Miscus campestris* and *Amophila vulgaris*, which had been taken in copuld, and whence he was led to consider the former only as a variety of the latter species. He also exhibited a new British species of *Nomada*, and various rare British *Andrenæ*.

Mr. Walton exhibited three new British species of the *Curculio-nideous* genus *Magdalis*.

October 5th.—J. Walton, Esq., V.P. in the Chair.

Mr. Sells exhibited a number of illustrations of the natural history of various species of insects, including nests of the *Osmia cærulescens*, numerous kinds of galls formed by *Cecidomyiæ*, &c., with their parasites; *Chlorops pumilionis*, in various states, the larvæ of which had proved very destructive this year near Kingston, and had entirely destroyed several acres of rye.

Mr. Westwood exhibited a remarkable gall brought from Manilla by Mr. Cuming, the outer covering of which consisted of exceedingly fine filaments, which crumbled to powder on being touched, and the inhabitant of which was a species of *Cynips*; also a cocoon made by a large *Saturnia*, the chrysalis of which was still inclosed and filled with eggs, although the antennæ-cases were so broad as to lead to the supposition that the specimen was a male.

Mr. Ingpen exhibited the cocoon of *Cetonia aurata*, the larva of which he had then recently found at the root of a tree, containing a living imago; likewise another mass of the cocoons of the *Hemiteles* sp.? found attached to a lilac branch.

Mr. Smith exhibited various species of British ants of the different sexes, showing the two distinct kinds of neuters of *Formica sanguinea*, in the nest of which he had also found *Formica fusca*, *F. cunicularia*, and *Myrmica rubra*: also a piece of the stump of an oak tree burrowed into in all directions and inhabited by *Formica rufa*.

Mr. Stephens mentioned a remarkable instance of the occurrence of the autumnal disease of flies, having observed that a great number of the blades of a tall grass (*Sesleria cærulea*) growing at the sides of the path leading through Ongar Park Wood in Essex, for about fifty yards were covered with hundreds of dead specimens of *Cheilosia gracilis*, many of which he exhibited still attached to the stems of the grass: he also observed one of the flies fly languidly down, settle on the grass, and die.

Mr. Westwood exhibited drawings of the veins of the wings of various genera of British butterflies, commenting upon the modifica-

tions to which they are subject, and which he had found to afford a very satisfactory character for determining the limits of several of the genera, not only in these insects, but also among the *Homoptera*, in which order they had not hitherto been employed.

The commencement of a paper by J. O. Westwood, F.L.S., entitled "Observations on the Linnæan species of *Staphylinidæ*," was read.

In this memoir the author reviews the opinions which have been expressed by the various writers upon this family of beetles relative to the different species of rove-beetles described by Linnæus, and also, guided by the Linnæan Collection itself in the possession of the Linnæan Society, determines the modern genera to which the species respectively belong, and corrects their synonyms. The following is an abstract of the latter part of these observations :—

Sp. 1. *Staphylinus hirtus* is the *Emus hirtus*, Leach.

Sp. 2. *St. murinus* is *Staphylinus* (*Trichoderma*, Steph.) *nebulosus*, Fabr., Steph., &c.

Sp. 3. *St. maxillosus*. Under this name Linnæus united *Creophilus maxillosus*, K. and *Goerius olens*, Leach.

Sp. 4. *St. erythropterus* is the *St. erythropterus*, Fabr. (*cæsareus*, Cederh. and Erichs.), not the *St. castanopterus*, Grav.

Sp. 5. *St. politus*. Several species confounded together, but the typical specimen is the *Staph. æneus*, Grav., Gyll.

Sp. 6. *St. rufus* is *Oxyporus rufus*, Fabr.

Sp. 7. *St. lunulatus* is *Bolitobius lunulatus* of Panzer and Zetterstedt (*B. atricapillus*, Fabr., &c.).

Sp. 8. *St. riparius* is *Pæderus riparius*, Fab.

Sp. 9. *St. obtusus* is a *Tachyporus* specifically identical with *T. analis*, Fab., which is a variety of it.

Sp. 10. *St. lignorum* is a *Tachinus* of the size of *T. subterraneus*.

Sp. 11. *St. Silphoides* is identical with *Tachinus suturalis*, Grav.

Sp. 12. *St. subterraneus* is *Tachinus subterraneus*, Grav.

Sp. 13. *St. flavescens*. No specimen of this doubtful species exists in the Linnæan cabinet.

Sp. 14. *St. elongatus* is identical with *Lathrobium elongatum*, Erichs.

Sp. 15. *St. biguttatus* is a small *Stenus*.

Sp. 16. *St. bipustulatus*. No specimen of this evident species of *Stenus* exists in the Linnæan cabinet.

Sp. 17. *St. cantharellus*. Ditto. Probably a *Malthinus*.

Sp. 18. *St. littoreus* is identical with *Oxyporus* (*Conurus*, Steph.) *cellaris*, Fab.

Sp. 19. *St. sanguineus* is an *Aleochara* closely allied to *A. fuscipes*.

Sp. 20. *St. caraboides* is *Lesteva caraboides*, Grav. (*testaceus*, Bdv. and Lacord.)

Sp. 21. *St. chrysomelinus* is *Tachyporus chrysomelinus*, Auct.

Sp. 22. *St. flavipes* is *Tachyporus hypnorum*, Fab.

Sp. 23. *St. fuscipes* is identical with *Gyrophypnus lentus*, Grav.

Sp. 24. *St. rufipes* is identical with *Tachinus pullus*, Grav.

Sp. 25. *St. piceus* is *Oxytelus piceus*, Gyll.

Sp. 26. *St. boleti* is *Gyrophæna minima*, Erichs.

tions to which they are subject, and which he had found to afford a very satisfactory character for determining the limits of several of the genera, not only in these insects, but also among the *Homoptera*, in which order they had not hitherto been employed.

The commencement of a paper by J. O. Westwood, F.L.S., entitled "Observations on the Linnæan species of *Staphylinidæ*," was read.

In this memoir the author reviews the opinions which have been expressed by the various writers upon this family of beetles relative to the different species of rove-beetles described by Linnæus, and also, guided by the Linnæan Collection itself in the possession of the Linnæan Society, determines the modern genera to which the species respectively belong, and corrects their synonyms. The following is an abstract of the latter part of these observations:—

Sp. 1. *Staphylinus hirtus* is the *Emus hirtus*, Leach.

Sp. 2. *St. murinus* is *Staphylinus* (*Trichoderma*, Steph.) *nebulosus*, Fabr., Steph., &c.

Sp. 3. *St. maxillosus*. Under this name Linnæus united *Creophilus maxillosus*, K. and *Goerius olens*, Leach.

Sp. 4. *St. erythropterus* is the *St. erythropterus*, Fabr. (*cæsareus*, Cederh. and Erichs.), not the *St. castanopterus*, Grav.

Sp. 5. *St. politus*. Several species confounded together, but the typical specimen is the *Staph. æneus*, Grav., Gyll.

Sp. 6. *St. rufus* is *Oxyporus rufus*, Fabr.

Sp. 7. *St. lunulatus* is *Bolitobius lunulatus* of Panzer and Zetterstedt (*B. atricapillus*, Fabr., &c.).

Sp. 8. *St. riparius* is *Pæderus riparius*, Fab.

Sp. 9. *St. obtusus* is a *Tachyporus* specifically identical with *T. analis*, Fab., which is a variety of it.

Sp. 10. *St. lignorum* is a *Tachinus* of the size of *T. subterraneus*.

Sp. 11. *St. Silphoides* is identical with *Tachinus suturalis*, Grav.

Sp. 12. *St. subterraneus* is *Tachinus subterraneus*, Grav.

Sp. 13. *St. flavescens*. No specimen of this doubtful species exists in the Linnæan cabinet.

Sp. 14. *St. elongatus* is identical with *Lathrobium elongatum*, Erichs.

Sp. 15. *St. biguttatus* is a small *Stenus*.

Sp. 16. *St. bipustulatus*. No specimen of this evident species of *Stenus* exists in the Linnæan cabinet.

Sp. 17. *St. cantharellus*. Ditto. Probably a *Malthinus*.

Sp. 18. *St. littoreus* is identical with *Oxyporus* (*Conurus*, Steph.) *cellaris*, Fab.

Sp. 19. *St. sanguineus* is an *Aleochara* closely allied to *A. fuscipes*.

Sp. 20. *St. caraboides* is *Lesteva caraboides*, Grav. (*testaceus*, Bdv. and Lacord.)

Sp. 21. *St. chrysomelinus* is *Tachyporus chrysomelinus*, Auct.

Sp. 22. *St. flavipes* is *Tachyporus hypnorum*, Fab.

Sp. 23. *St. fuscipes* is identical with *Gyrophypnus lentus*, Grav.

Sp. 24. *St. rufipes* is identical with *Tachinus pullus*, Grav.

Sp. 25. *St. piceus* is *Oxytelus piceus*, Gyll.

Sp. 26. *St. boleti* is *Gyrophæna minima*, Erichs.

tions to which they are subject, and which he had found to afford a very satisfactory character for determining the limits of several of the genera, not only in these insects, but also among the *Homoptera*, in which order they had not hitherto been employed.

The commencement of a paper by J. O. Westwood, F.L.S., entitled "Observations on the Linnæan species of *Staphylinidæ*," was read.

In this memoir the author reviews the opinions which have been expressed by the various writers upon this family of beetles relative to the different species of rove-beetles described by Linnæus, and also, guided by the Linnæan Collection itself in the possession of the Linnæan Society, determines the modern genera to which the species respectively belong, and corrects their synonyms. The following is an abstract of the latter part of these observations:—

Sp. 1. *Staphylinus hirtus* is the *Emus hirtus*, Leach.

Sp. 2. *St. murinus* is *Staphylinus* (*Trichoderma*, Steph.) *nebulosus*, Fabr., Steph., &c.

Sp. 3. *St. maxillosus*. Under this name Linnæus united *Creophilus maxillosus*, K. and *Goerius olens*, Leach.

Sp. 4. *St. erythropterus* is the *St. erythropterus*, Fabr. (*cæsareus*, Cederh. and Erichs.), not the *St. castanopterus*, Grav.

Sp. 5. *St. politus*. Several species confounded together, but the typical specimen is the *Staph. æneus*, Grav., Gyll.

Sp. 6. *St. rufus* is *Oxyporus rufus*, Fabr.

Sp. 7. *St. lunulatus* is *Bolitobius lunulatus* of Panzer and Zetterstedt (*B. atricapillus*, Fabr., &c.).

Sp. 8. *St. riparius* is *Pæderus riparius*, Fab.

Sp. 9. *St. obtusus* is a *Tachyporus* specifically identical with *T. analis*, Fab., which is a variety of it.

Sp. 10. *St. lignorum* is a *Tachinus* of the size of *T. subterraneus*.

Sp. 11. *St. Silphoides* is identical with *Tachinus suturalis*, Grav.

Sp. 12. *St. subterraneus* is *Tachinus subterraneus*, Grav.

Sp. 13. *St. flavescens*. No specimen of this doubtful species exists in the Linnæan cabinet.

Sp. 14. *St. elongatus* is identical with *Lathrobium elongatum*, Erichs.

Sp. 15. *St. biguttatus* is a small *Stenus*.

Sp. 16. *St. bipustulatus*. No specimen of this evident species of *Stenus* exists in the Linnæan cabinet.

Sp. 17. *St. cantharellus*. Ditto. Probably a *Malthinus*.

Sp. 18. *St. littoreus* is identical with *Oxyporus* (*Conurus*, Steph.) *cellaris*, Fab.

Sp. 19. *St. sanguineus* is an *Aleochara* closely allied to *A. fuscipes*.

Sp. 20. *St. caraboides* is *Lesteva caraboides*, Grav. (*testaceus*, Bdv. and Lacord.)

Sp. 21. *St. chrysomelinus* is *Tachyporus chrysomelinus*, Auct.

Sp. 22. *St. flavipes* is *Tachyporus hypnorum*, Fab.

Sp. 23. *St. fuscipes* is identical with *Gyrophypnus lentus*, Grav.

Sp. 24. *St. rufipes* is identical with *Tachinus pullus*, Grav.

Sp. 25. *St. piceus* is *Oxytelus piceus*, Gyll.

Sp. 26. *St. boleti* is *Gyrophæna minima*, Erichs.

November 2nd.—J. Walton, Esq., V.P. in the Chair.

Mr. Westwood gave an account of several recent observations made by him relative to the development of the *Myriapoda*, exhibiting specimens and drawings of some minute individuals of *Lithobius forcipatus*, which differed from each other in the number of limbs, one having only eight pairs of feet, another ten, another eleven, whilst one, which was a quarter of an inch long, had gained fifteen pairs. In the former individuals there were several pairs of extremely minute appendages arising at the sides of the rudimental terminal segments of the body; but in the last-mentioned specimen the terminal segment of the long hind pair of feet were fully developed. He also exhibited a full grown *Lithobius*, one of the penultimate legs of which was very short, and which he considered was the result of an arrest of development, and not the reproduction of the limb. He would also explain in the same manner the cause of the minute size of one of the feet of several specimens of *Scolopendra* which had been exhibited at former meetings of the Society, in all which it was one or other of the hind feet which was of a diminished size. He also exhibited a small slender white wingless insect, one sixth of an inch long, captured running on the ground, possessing six feet and two very long anal filaments, thus resembling the larva of a *Staphylinus*, but having multiarticulate antennæ, and broad 4-dentate mandibles; the abdominal segments were also furnished at the sides beneath with very minute short filaments. Hence as this insect would not accord with the larvæ of any known group of insects, he deemed it possible that it might constitute a new genus of *Myriapoda* in an undeveloped state.

The following memoirs were read.

Notice of a simple method of entrapping and destroying Wasps. By the Rev. F. W. Hope. This plan, which is very serviceable in protecting wall fruit, consists in placing pieces of the fruit or bits of meat under a hand glass raised an inch or two above the ground, having one of the top panes taken out or a small hole made at top, with another hand glass placed on the top of the lower one; the insects being attracted to the food fly upwards into the upper glass, and are easily destroyed by introducing a few lighted matches into the upper glass. This plan is mentioned by Mr. Ingpen in his instructions for collecting, and Mr. Marshall stated that he had also known it used for collecting nocturnal *Lepidoptera*, a light being used under the glass to entrap the moths. Mr. Bainbridge also mentioned that by hanging dead birds or pieces of flesh in front of wall-fruit trees the fruit would be left untouched.

The continuation of Mr. Westwood's memoir on the Linnæan *Staphylinidæ* was also read.

December 7th.—The Rev. F. W. Hope, President, in the Chair.

Mr. Evans exhibited a specimen of *Paussus Burmeisteri*, and a new species of *Chiron*, which he had recently received from South Africa.

November 2nd.—J. Walton, Esq., V.P. in the Chair.

Mr. Westwood gave an account of several recent observations made by him relative to the development of the *Myriapoda*, exhibiting specimens and drawings of some minute individuals of *Lithobius forcipatus*, which differed from each other in the number of limbs, one having only eight pairs of feet, another ten, another eleven, whilst one, which was a quarter of an inch long, had gained fifteen pairs. In the former individuals there were several pairs of extremely minute appendages arising at the sides of the rudimental terminal segments of the body; but in the last-mentioned specimen the terminal segment of the long hind pair of feet were fully developed. He also exhibited a full grown *Lithobius*, one of the penultimate legs of which was very short, and which he considered was the result of an arrest of development, and not the reproduction of the limb. He would also explain in the same manner the cause of the minute size of one of the feet of several specimens of *Scolopendra* which had been exhibited at former meetings of the Society, in all which it was one or other of the hind feet which was of a diminished size. He also exhibited a small slender white wingless insect, one sixth of an inch long, captured running on the ground, possessing six feet and two very long anal filaments, thus resembling the larva of a *Staphylinus*, but having multiarticulate antennæ, and broad 4-dentate mandibles; the abdominal segments were also furnished at the sides beneath with very minute short filaments. Hence as this insect would not accord with the larvæ of any known group of insects, he deemed it possible that it might constitute a new genus of *Myriapoda* in an undeveloped state.

The following memoirs were read.

Notice of a simple method of entrapping and destroying Wasps. By the Rev. F. W. Hope. This plan, which is very serviceable in protecting wall fruit, consists in placing pieces of the fruit or bits of meat under a hand glass raised an inch or two above the ground, having one of the top panes taken out or a small hole made at top, with another hand glass placed on the top of the lower one; the insects being attracted to the food fly upwards into the upper glass, and are easily destroyed by introducing a few lighted matches into the upper glass. This plan is mentioned by Mr. Ingpen in his instructions for collecting, and Mr. Marshall stated that he had also known it used for collecting nocturnal *Lepidoptera*, a light being used under the glass to entrap the moths. Mr. Bainbridge also mentioned that by hanging dead birds or pieces of flesh in front of wall-fruit trees the fruit would be left untouched.

The continuation of Mr. Westwood's memoir on the Linnæan *Staphylinidæ* was also read.

December 7th.—The Rev. F. W. Hope, President, in the Chair.

Mr. Evans exhibited a specimen of *Paussus Burmeisteri*, and a new species of *Chiron*, which he had recently received from South Africa.

November 2nd.—J. Walton, Esq., V.P. in the Chair.

Mr. Westwood gave an account of several recent observations made by him relative to the development of the *Myriapoda*, exhibiting specimens and drawings of some minute individuals of *Lithobius forcipatus*, which differed from each other in the number of limbs, one having only eight pairs of feet, another ten, another eleven, whilst one, which was a quarter of an inch long, had gained fifteen pairs. In the former individuals there were several pairs of extremely minute appendages arising at the sides of the rudimental terminal segments of the body; but in the last-mentioned specimen the terminal segment of the long hind pair of feet were fully developed. He also exhibited a full grown *Lithobius*, one of the penultimate legs of which was very short, and which he considered was the result of an arrest of development, and not the reproduction of the limb. He would also explain in the same manner the cause of the minute size of one of the feet of several specimens of *Scolopendra* which had been exhibited at former meetings of the Society, in all which it was one or other of the hind feet which was of a diminished size. He also exhibited a small slender white wingless insect, one sixth of an inch long, captured running on the ground, possessing six feet and two very long anal filaments, thus resembling the larva of a *Staphylinus*, but having multiarticulate antennæ, and broad 4-dentate mandibles; the abdominal segments were also furnished at the sides beneath with very minute short filaments. Hence as this insect would not accord with the larvæ of any known group of insects, he deemed it possible that it might constitute a new genus of *Myriapoda* in an undeveloped state.

The following memoirs were read.

Notice of a simple method of entrapping and destroying Wasps. By the Rev. F. W. Hope. This plan, which is very serviceable in protecting wall fruit, consists in placing pieces of the fruit or bits of meat under a hand glass raised an inch or two above the ground, having one of the top panes taken out or a small hole made at top, with another hand glass placed on the top of the lower one; the insects being attracted to the food fly upwards into the upper glass, and are easily destroyed by introducing a few lighted matches into the upper glass. This plan is mentioned by Mr. Ingpen in his instructions for collecting, and Mr. Marshall stated that he had also known it used for collecting nocturnal *Lepidoptera*, a light being used under the glass to entrap the moths. Mr. Bainbridge also mentioned that by hanging dead birds or pieces of flesh in front of wall-fruit trees the fruit would be left untouched.

The continuation of Mr. Westwood's memoir on the Linnæan *Staphylinidæ* was also read.

December 7th.—The Rev. F. W. Hope, President, in the Chair.

Mr. Evans exhibited a specimen of *Paussus Burmeisteri*, and a new species of *Chiron*, which he had recently received from South Africa.

Dr. Calvert presented some living larvæ of one of the species of *Noctuidæ*, which he had found exceedingly destructive to his wheat crops in the north of Yorkshire, the larvæ ascending the stems and devouring the grain at the end of September. The land upon which the crops attacked were sown was reclaimed moor land, and it was considered that it was owing to the lateness of the ripening of the crop that it was subject to these attacks, earlier crops in more southern parts of the country escaping. It was further suggested that it would be desirable to plough up the soil several times to a considerable depth, whereby the larvæ or chrysalides in the winter or spring would become exposed, and would be greedily devoured either by the rooks or by ducks, which might be turned into the fields for that purpose.

The following memoirs were read.

Observations on the Migrations of certain Butterflies in British Guiana. By Robert Schomburgk, Esq., Corr. Memb. E.S., &c.

In this memoir the author notices that several species of *Callidryas* are often observed in the months of September and October, settling in prodigious numbers on the wet sand banks, and which, when alarmed, presented a brilliant spectacle in the display of the different shades from deep orange to the palest sulphur colours. The Indians, when they observed a number hovering over a particular spot, said that they were come to celebrate a marriage dance, whilst such as were settled with their long spiral tongues unrolled, and resting on the moist sand bank, were compared to paiwori drinkers. On the morning of the 10th October 1838, while ascending the river Essequibo, he observed myriads of these butterflies coming from the south-west and flying to the north-east, always crossing the river in that direction, flying over the tops of the forest trees, but descending nearly to the surface of the river when they had to cross it: the distance which the boat had travelled during the day was nine miles, and the butterflies continued an uninterrupted column from 8 o'clock A.M. till half-past 5 P.M., so that their numbers must have been incredible. It was supposed that they came from the extensive savannahs along the Pacaraima mountains, and were flying toward those which extend between the rivers Berbice and Corentyn. The Accawai Indians at the upper river Demerara sometimes collect large numbers of caterpillars, which they use as food: indeed their numbers are so great that whole baskets-full are gathered, after which they are roasted and mixed with the flour prepared from the root of the cassava (*Jatropha manihot*), and baked into cakes; the caterpillars are also sometimes mixed with turtle eggs, which constitutes a great delicacy. The Accawai Indians in Mr. Schomburgk's company asserted that the butterflies there seen deposited their eggs in the plants from which the caterpillars used as food are collected.

Mr. Gould also stated that he had observed a species of caterpillar in vast profusion in the interior of New South Wales, distinct from the bugong, upon which the natives fed, and which was also devoured by a species of hawk and the ibis.

There was also read a memoir by J. O. Westwood, F.L.S., con-

Dr. Calvert presented some living larvæ of one of the species of *Noctuidæ*, which he had found exceedingly destructive to his wheat crops in the north of Yorkshire, the larvæ ascending the stems and devouring the grain at the end of September. The land upon which the crops attacked were sown was reclaimed moor land, and it was considered that it was owing to the lateness of the ripening of the crop that it was subject to these attacks, earlier crops in more southern parts of the country escaping. It was further suggested that it would be desirable to plough up the soil several times to a considerable depth, whereby the larvæ or chrysalides in the winter or spring would become exposed, and would be greedily devoured either by the rooks or by ducks, which might be turned into the fields for that purpose.

The following memoirs were read.

Observations on the Migrations of certain Butterflies in British Guiana. By Robert Schomburgk, Esq., Corr. Memb. E.S., &c.

In this memoir the author notices that several species of *Callidryas* are often observed in the months of September and October, settling in prodigious numbers on the wet sand banks, and which, when alarmed, presented a brilliant spectacle in the display of the different shades from deep orange to the palest sulphur colours. The Indians, when they observed a number hovering over a particular spot, said that they were come to celebrate a marriage dance, whilst such as were settled with their long spiral tongues unrolled, and resting on the moist sand bank, were compared to paiwori drinkers. On the morning of the 10th October 1838, while ascending the river Essequibo, he observed myriads of these butterflies coming from the south-west and flying to the north-east, always crossing the river in that direction, flying over the tops of the forest trees, but descending nearly to the surface of the river when they had to cross it: the distance which the boat had travelled during the day was nine miles, and the butterflies continued an uninterrupted column from 8 o'clock A.M. till half-past 5 P.M., so that their numbers must have been incredible. It was supposed that they came from the extensive savannahs along the Pacaraima mountains, and were flying toward those which extend between the rivers Berbice and Corentyn. The Accawai Indians at the upper river Demerara sometimes collect large numbers of caterpillars, which they use as food: indeed their numbers are so great that whole baskets-full are gathered, after which they are roasted and mixed with the flour prepared from the root of the cassava (*Jatropha manihot*), and baked into cakes; the caterpillars are also sometimes mixed with turtle eggs, which constitutes a great delicacy. The Accawai Indians in Mr. Schomburgk's company asserted that the butterflies there seen deposited their eggs in the plants from which the caterpillars used as food are collected.

Mr. Gould also stated that he had observed a species of caterpillar in vast profusion in the interior of New South Wales, distinct from the bugong, upon which the natives fed, and which was also devoured by a species of hawk and the ibis.

There was also read a memoir by J. O. Westwood, F.L.S., con-

Dr. Calvert presented some living larvæ of one of the species of *Noctuidæ*, which he had found exceedingly destructive to his wheat crops in the north of Yorkshire, the larvæ ascending the stems and devouring the grain at the end of September. The land upon which the crops attacked were sown was reclaimed moor land, and it was considered that it was owing to the lateness of the ripening of the crop that it was subject to these attacks, earlier crops in more southern parts of the country escaping. It was further suggested that it would be desirable to plough up the soil several times to a considerable depth, whereby the larvæ or chrysalides in the winter or spring would become exposed, and would be greedily devoured either by the rooks or by ducks, which might be turned into the fields for that purpose.

The following memoirs were read.

Observations on the Migrations of certain Butterflies in British Guiana. By Robert Schomburgk, Esq., Corr. Memb. E.S., &c.

In this memoir the author notices that several species of *Callidryas* are often observed in the months of September and October, settling in prodigious numbers on the wet sand banks, and which, when alarmed, presented a brilliant spectacle in the display of the different shades from deep orange to the palest sulphur colours. The Indians, when they observed a number hovering over a particular spot, said that they were come to celebrate a marriage dance, whilst such as were settled with their long spiral tongues unrolled, and resting on the moist sand bank, were compared to paiwori drinkers. On the morning of the 10th October 1838, while ascending the river Essequibo, he observed myriads of these butterflies coming from the south-west and flying to the north-east, always crossing the river in that direction, flying over the tops of the forest trees, but descending nearly to the surface of the river when they had to cross it: the distance which the boat had travelled during the day was nine miles, and the butterflies continued an uninterrupted column from 8 o'clock A.M. till half-past 5 P.M., so that their numbers must have been incredible. It was supposed that they came from the extensive savannahs along the Pacaraima mountains, and were flying toward those which extend between the rivers Berbice and Corentyn. The Accawai Indians at the upper river Demerara sometimes collect large numbers of caterpillars, which they use as food: indeed their numbers are so great that whole baskets-full are gathered, after which they are roasted and mixed with the flour prepared from the root of the cassava (*Jatropha manihot*), and baked into cakes; the caterpillars are also sometimes mixed with turtle eggs, which constitutes a great delicacy. The Accawai Indians in Mr. Schomburgk's company asserted that the butterflies there seen deposited their eggs in the plants from which the caterpillars used as food are collected.

Mr. Gould also stated that he had observed a species of caterpillar in vast profusion in the interior of New South Wales, distinct from the bugong, upon which the natives fed, and which was also devoured by a species of hawk and the ibis.

There was also read a memoir by J. O. Westwood, F.L.S., con-

sisting of descriptions of the following exotic Hymenopterous insects belonging to the family *Sphegidae*:—

TRIROGMA W. *Antennæ* ♂, *ferè corporis longitudine filiformes*. *Caput tuberculo frontali*. *Mandibulæ mediocres dente interno latissimo*. *Labrum minimum*. *Metathorax utrinque angulariter productus*. *Abdomen 3-annulatum*, ♂. *Tarsi simplices*. *Ungues bifidi*. *Dolichuro affinis*.

Trirogma cærulea, W. *Tota cærulea, punctata, griseo-villosa, antennis tibiis tarsisque nigris, alis hyalinis*. *Expans. alar. lin. 9½*. *Inhabits Northern India*. *Mus. W. W. Saunders, F.L.S.*

APHELOTOMA, W. *Caput latum, anticè parum productum*. *Mandibulæ crassæ dente interno acuto*. *Thorax anticè et posticè valdè attenuatus*. *Alæ breves*. *Cellula marginalis 1, haud appendiculata; 4 submarginales, 1^{ma} appendiculata*. *Pedes inermes*. *Tarsi simplices* ♀. *Ampulici affinis*.

Aphelotoma Tasmanica, W. *Nigra, pedibus rufis, alis fuscis, anticis fasciè mediè albâ*. *Expans. alar. lin. 6*. *Inhabits Van Diemen's Land*. *D. Ewing. Mus. Westwood.*

CHLORION (*Latr. AMPULEX, Jur.*) *cyanipes*, W. *Nigro-cærulea, rudè punctata, mesothoracis dorso in medio haud longitudinaliter impresso, pedibus cyaneis, alis fuscescenti-hyalinis, nubilâ subapicali obscuriori*. *Expans. alar. lin. 5½*. *Inhabits the Cape of Good Hope*. *Mus. Westwood.*

ZOOLOGICAL SOCIETY.

July 14, 1840.—William Yarrell, Esq., Vice-President, in the Chair.

A letter from Sir Robert Heron, Bart., dated July 8, 1840, was read. It related to a young Kangaroo, which had crawled out of the pouch of the parent long before the proper time, and was consequently unable to return; its body was marked all over by the mother in her attempts to get it back into the pouch. In a second letter Sir R. Heron states that this young Kangaroo was quite naked, and unable to move. It was some hours before he could find the keeper, and when he arrived the little animal was scarcely alive. The keeper took it home, gave it milk, and by careful treatment it quite revived, and was restored to the pouch of the mother, where it has remained for five days, appears to be perfectly well, and frequently protrudes its nose. The mother never left it, and was evidently under great anxiety.

Some specimens, displaying the different stages of the *Rana Paradoxa*, were also exhibited. These specimens were brought from Demerara by Capt. Warren, who presented them to the Society.

Mr. Fraser exhibited and pointed out the characters of the following new species of birds from the collection of the Earl of Derby:

TURDUS GIGAS. *T. nigrescenti-olivaceus; subtus fuscescenti-cine-reus; hóc colore apud gulam crissumque obscuriore, caudâ et capite fuliginosis; gutturis plumis strigâ obscurâ et oblongâ notatis; rostro, pedibusque flavis.*

sisting of descriptions of the following exotic Hymenopterous insects belonging to the family *Sphegidae*:—

TRIROGMA W. *Antennæ* ♂, *ferè corporis longitudine filiformes*. *Caput tuberculo frontali*. *Mandibulæ mediocres dente interno latissimo*. *Labrum minimum*. *Metathorax utrinque angulariter productus*. *Abdomen 3-annulatum*, ♂. *Tarsi simplices*. *Ungues bifidi*. *Dolichuro affinis*.

Trirogma cærulea, W. *Tota cærulea, punctata, griseo-villosa, antennis tibiis tarsisque nigris, alis hyalinis*. *Expans. alar. lin. 9½*. *Inhabits Northern India*. *Mus. W. W. Saunders, F.L.S.*

APHELOTOMA, W. *Caput latum, anticè parum productum*. *Mandibulæ crassæ dente interno acuto*. *Thorax anticè et posticè valdè attenuatus*. *Alæ breves*. *Cellula marginalis 1, haud appendiculata; 4 submarginales, 1^{ma} appendiculata*. *Pedes inermes*. *Tarsi simplices* ♀. *Ampulici affinis*.

Aphelotoma Tasmanica, W. *Nigra, pedibus rufis, alis fuscis, anticis fasciè mediè albâ*. *Expans. alar. lin. 6*. *Inhabits Van Diemen's Land*. *D. Ewing. Mus. Westwood.*

CHLORION (*Latr. AMPULEX, Jur.*) *cyanipes*, W. *Nigro-cærulea, rudè punctata, mesothoracis dorso in medio haud longitudinaliter impresso, pedibus cyaneis, alis fuscescenti-hyalinis, nubilâ subapicali obscuriori*. *Expans. alar. lin. 5½*. *Inhabits the Cape of Good Hope*. *Mus. Westwood.*

ZOOLOGICAL SOCIETY.

July 14, 1840.—William Yarrell, Esq., Vice-President, in the Chair.

A letter from Sir Robert Heron, Bart., dated July 8, 1840, was read. It related to a young Kangaroo, which had crawled out of the pouch of the parent long before the proper time, and was consequently unable to return; its body was marked all over by the mother in her attempts to get it back into the pouch. In a second letter Sir R. Heron states that this young Kangaroo was quite naked, and unable to move. It was some hours before he could find the keeper, and when he arrived the little animal was scarcely alive. The keeper took it home, gave it milk, and by careful treatment it quite revived, and was restored to the pouch of the mother, where it has remained for five days, appears to be perfectly well, and frequently protrudes its nose. The mother never left it, and was evidently under great anxiety.

Some specimens, displaying the different stages of the *Rana Paradoxa*, were also exhibited. These specimens were brought from Demerara by Capt. Warren, who presented them to the Society.

Mr. Fraser exhibited and pointed out the characters of the following new species of birds from the collection of the Earl of Derby:

TURDUS GIGAS. *T. nigrescenti-olivaceus; subtus fuscescenti-cine-reus; hóc colore apud gulam crissumque obscuriore, caudâ et capite fuliginosis; gutturis plumis strigâ obscurâ et oblongâ notatis; rostro, pedibusque flavis.*

sisting of descriptions of the following exotic Hymenopterous insects belonging to the family *Sphegidae*:—

TRIROGMA W. *Antennæ* ♂, *ferè corporis longitudine filiformes*. *Caput tuberculo frontali*. *Mandibulæ mediocres dente interno latissimo*. *Labrum minimum*. *Metathorax utrinque angulariter productus*. *Abdomen 3-annulatum*, ♂. *Tarsi simplices*. *Ungues bifidi*. *Dolichuro affinis*.

Trirogma cærulea, W. *Tota cærulea, punctata, griseo-villosa, antennis tibiis tarsisque nigris, alis hyalinis*. *Expans. alar. lin. 9½*. *Inhabits Northern India*. Mus. W. W. Saunders, F.L.S.

APHELOTOMA, W. *Caput latum, anticè parum productum*. *Mandibulæ crassæ dente interno acuto*. *Thorax anticè et posticè valdè attenuatus*. *Alæ breves*. *Cellula marginalis 1, haud appendiculata; 4 submarginales, 1^{ma} appendiculata*. *Pedes inermes*. *Tarsi simplices* ♀. *Ampulici affinis*.

Aphelotoma Tasmanica, W. *Nigra, pedibus rufis, alis fuscis, anticis fasciè mediè albâ*. *Expans. alar. lin. 6*. *Inhabits Van Diemen's Land*. D. Ewing. Mus. Westwood.

CHLORION (Latr. *AMPULEX*, Jur.) *cyanipes*, W. *Nigro-cærulea, rudè punctata, mesothoracis dorso in medio haud longitudinaliter impresso, pedibus cyaneis, alis fuscescenti-hyalinis, nubilâ subapicali obscuriori*. *Expans. alar. lin. 5½*. *Inhabits the Cape of Good Hope*. Mus. Westwood.

ZOOLOGICAL SOCIETY.

July 14, 1840.—William Yarrell, Esq., Vice-President, in the Chair.

A letter from Sir Robert Heron, Bart., dated July 8, 1840, was read. It related to a young Kangaroo, which had crawled out of the pouch of the parent long before the proper time, and was consequently unable to return; its body was marked all over by the mother in her attempts to get it back into the pouch. In a second letter Sir R. Heron states that this young Kangaroo was quite naked, and unable to move. It was some hours before he could find the keeper, and when he arrived the little animal was scarcely alive. The keeper took it home, gave it milk, and by careful treatment it quite revived, and was restored to the pouch of the mother, where it has remained for five days, appears to be perfectly well, and frequently protrudes its nose. The mother never left it, and was evidently under great anxiety.

Some specimens, displaying the different stages of the *Rana Paradoxa*, were also exhibited. These specimens were brought from Demerara by Capt. Warren, who presented them to the Society.

Mr. Fraser exhibited and pointed out the characters of the following new species of birds from the collection of the Earl of Derby:

TURDUS GIGAS. *T. nigrescenti-olivaceus; subtus fuscescenti-cine-reus; hóc colore apud gulam crissumque obscuriore, caudâ et capite fuliginosis; gutturis plumis strigâ obscurâ et oblongâ notatis; rostro, pedibusque flavis*.

Long. tot. 14 unc. ; rostri, $1\frac{1}{8}$; alæ, $6\frac{1}{2}$; caudæ, $6\frac{1}{2}$; tarsi, $1\frac{1}{2}$.

Hab. S^{ta}. Fé de Bogota.

This bird may at once be distinguished from any other American species with which I am acquainted by its much greater size.

PSITTACUS CHALCOPHTERUS. *P. nigricans*, nitore submetallico ; plumis capitis, cæruleo, et nec non viridi lavatis ; illis dorsi sub-fulginosi, tinctura viridi ; illis corporis subtus cæruleo suffusis ; alarum tectricibus æneo-viridibus, hic et illic ochreo tinctis ; primariis, uropygio, caudæque intensè cæruleis ; tectricibus caudæ paululùm virescentibus, crisso rubro ; plumis femorum gutturisque rubro variegatis ; alis subtus virescenti-cæruleis, tectricibus inferioribus intensè cæruleis ; rostro flavo.

Long. tot. $11\frac{1}{2}$ unc. ; rostri, 1 ; alæ, $8\frac{3}{8}$; caudæ, $3\frac{1}{2}$; tarsi, $\frac{1}{2}$.

Hab. S^{ta}. Fé de Bogota.

Very closely approximates to the *Psittacus purpureus*, Gmel., but may at once be distinguished by its beak being entirely yellow ; the absence of the red spot in front of the eye ; its blue rump ; the feathers on the legs, throat and chest being variegated with red ; the darker colour of the abdomen, and also in the colouring of the upper and under surfaces of the wings.

PICUS ELEGANS. *P. coccineus*, fasciæ per genas excurrente, et abdomine, flavis ; mento, guttureque nigro flavidoque variegatis ; plumis pectoris et uropygii rubello, flavido, et nigro fasciatis ; caudâ nigrâ, primariis fusciscenti-nigris, extus olivaceis.

Fœm. differt gutture, capiteque supernè nigris.

Long. tot. 12 unc. ; rostri, $1\frac{1}{2}$; alæ, $5\frac{3}{4}$; caudæ, $4\frac{1}{2}$; tarsi, $\frac{7}{8}$.

Hab. S^{ta}. Fé de Bogota.

Head, neck, back, wings, and moustache, blood-red ; a stripe, commencing at the nostril, passing through the eye, and extending on to the ear-coverts, together with the abdomen, under surface of the tail, and wing-coverts, yellow ; chin black, each feather having a narrow bar of yellow, which becomes more distinct on the throat and chest, which are tinged with red ; the feathers of the rump and upper tail-coverts are similarly marked with those on the chest, but more obscurely ; primaries olive ; tail, beak and feet black.

The female only differs from the male in having the upper surface of the head and moustache black ; all the colours are less brilliant.

This bird appears nearly related to *Colaptes campestris* (*Picus campestris*, Licht.).

The three species above described are from the collection of the Earl of Derby.

Mr. Fraser also exhibited some specimens of the true *Pteroglossus Azaræ* of Wagler and Vieillot, and pointed out the differences between that species and the bird figured by Mr. Gould, in his Monograph of the family of Toucans, under that name.

"This bird differs from the *Azaræ* of Gould, in having the broad dusky dash along the upper mandible (having seen about twenty specimens of this species, of all ages and sexes, I can safely say that it is not a sign of immaturity, or caused by decomposition, as Mr. Gould was led to suppose, but really a specific difference), the very

Long. tot. 14 unc. ; rostri, $1\frac{1}{8}$; alæ, $6\frac{1}{2}$; caudæ, $6\frac{1}{2}$; tarsi, $1\frac{1}{2}$.

Hab. S^{ta}. Fé de Bogota.

This bird may at once be distinguished from any other American species with which I am acquainted by its much greater size.

PSITTACUS CHALCOPHTERUS. *P. nigricans, nitore submetallico ; plumis capitis, cæruleo, et nec non viridi lavatis ; illis dorsi sub-fulginosi, tinctura viridi ; illis corporis subtus cæruleo suffusis ; alarum tectricibus æneo-viridibus, hic et illic ochreo tinctis ; primariis, uropygio, caudæque intensè cæruleis ; tectricibus caudæ paululùm virescentibus, crisso rubro ; plumis femorum gutturisque rubro variegatis ; alis subtus virescenti-cæruleis, tectricibus inferioribus intensè cæruleis ; rostro flavo.*

Long. tot. $11\frac{1}{2}$ unc. ; rostri, 1 ; alæ, $8\frac{3}{8}$; caudæ, $3\frac{1}{2}$; tarsi, $\frac{1}{2}$.

Hab. S^{ta}. Fé de Bogota.

Very closely approximates to the *Psittacus purpureus*, Gmel., but may at once be distinguished by its beak being entirely yellow ; the absence of the red spot in front of the eye ; its blue rump ; the feathers on the legs, throat and chest being variegated with red ; the darker colour of the abdomen, and also in the colouring of the upper and under surfaces of the wings.

PICUS ELEGANS. *P. coccineus, fasciæ per genas excurrente, et abdomine, flavis ; mento, guttureque nigro flavidoque variegatis ; plumis pectoris et uropygii rubello, flavido, et nigro fasciatis ; caudâ nigrâ, primariis fusciscenti-nigris, extus olivaceis.*

Fœm. differt gutture, capiteque superne nigris.

Long. tot. 12 unc. ; rostri, $1\frac{1}{2}$; alæ, $5\frac{3}{4}$; caudæ, $4\frac{1}{2}$; tarsi, $\frac{7}{8}$.

Hab. S^{ta}. Fé de Bogota.

Head, neck, back, wings, and moustache, blood-red ; a stripe, commencing at the nostril, passing through the eye, and extending on to the ear-coverts, together with the abdomen, under surface of the tail, and wing-coverts, yellow ; chin black, each feather having a narrow bar of yellow, which becomes more distinct on the throat and chest, which are tinged with red ; the feathers of the rump and upper tail-coverts are similarly marked with those on the chest, but more obscurely ; primaries olive ; tail, beak and feet black.

The female only differs from the male in having the upper surface of the head and moustache black ; all the colours are less brilliant.

This bird appears nearly related to *Colaptes campestris* (*Picus campestris*, Licht.).

The three species above described are from the collection of the Earl of Derby.

Mr. Fraser also exhibited some specimens of the true *Pteroglossus Azaræ* of Wagler and Vieillot, and pointed out the differences between that species and the bird figured by Mr. Gould, in his Monograph of the family of Toucans, under that name.

"This bird differs from the *Azaræ* of Gould, in having the broad dusky dash along the upper mandible (having seen about twenty specimens of this species, of all ages and sexes, I can safely say that it is not a sign of immaturity, or caused by decomposition, as Mr. Gould was led to suppose, but really a specific difference), the very

Long. tot. 14 unc. ; rostri, $1\frac{1}{8}$; alæ, $6\frac{1}{2}$; caudæ, $6\frac{1}{2}$; tarsi, $1\frac{1}{2}$.

Hab. S^{ta}. Fé de Bogota.

This bird may at once be distinguished from any other American species with which I am acquainted by its much greater size.

PSITTACUS CHALCOPHTERUS. *P. nigricans, nitore submetallico ; plumis capitis, cæruleo, et nec non viridi lavatis ; illis dorsi sub-fulginosi, tinctura viridi ; illis corporis subtus cæruleo suffusis ; alarum tectricibus æneo-viridibus, hic et illic ochreo tinctis ; primariis, uropygio, caudæque intensè cæruleis ; tectricibus caudæ paululùm virescentibus, crisso rubro ; plumis femorum gutturisque rubro variegatis ; alis subtus virescenti-cæruleis, tectricibus inferioribus intensè cæruleis ; rostro flavo.*

Long. tot. $11\frac{1}{2}$ unc. ; rostri, 1 ; alæ, $8\frac{3}{8}$; caudæ, $3\frac{1}{2}$; tarsi, $\frac{1}{2}$.

Hab. S^{ta}. Fé de Bogota.

Very closely approximates to the *Psittacus purpureus*, Gmel., but may at once be distinguished by its beak being entirely yellow ; the absence of the red spot in front of the eye ; its blue rump ; the feathers on the legs, throat and chest being variegated with red ; the darker colour of the abdomen, and also in the colouring of the upper and under surfaces of the wings.

PICUS ELEGANS. *P. coccineus, fasciæ per genas excurrente, et abdomine, flavis ; mento, guttureque nigro flavidoque variegatis ; plumis pectoris et uropygii rubello, flavido, et nigro fasciatis ; caudâ nigrâ, primariis fusciscenti-nigris, extus olivaceis.*

Fœm. differt gutture, capiteque superne nigris.

Long. tot. 12 unc. ; rostri, $1\frac{1}{2}$; alæ, $5\frac{3}{4}$; caudæ, $4\frac{1}{2}$; tarsi, $\frac{7}{8}$.

Hab. S^{ta}. Fé de Bogota.

Head, neck, back, wings, and moustache, blood-red ; a stripe, commencing at the nostril, passing through the eye, and extending on to the ear-coverts, together with the abdomen, under surface of the tail, and wing-coverts, yellow ; chin black, each feather having a narrow bar of yellow, which becomes more distinct on the throat and chest, which are tinged with red ; the feathers of the rump and upper tail-coverts are similarly marked with those on the chest, but more obscurely ; primaries olive ; tail, beak and feet black.

The female only differs from the male in having the upper surface of the head and moustache black ; all the colours are less brilliant.

This bird appears nearly related to *Colaptes campestris* (*Picus campestris*, Licht.).

The three species above described are from the collection of the Earl of Derby.

Mr. Fraser also exhibited some specimens of the true *Pteroglossus Azaræ* of Wagler and Vieillot, and pointed out the differences between that species and the bird figured by Mr. Gould, in his Monograph of the family of Toucans, under that name.

"This bird differs from the *Azaræ* of Gould, in having the broad dusky dash along the upper mandible (having seen about twenty specimens of this species, of all ages and sexes, I can safely say that it is not a sign of immaturity, or caused by decomposition, as Mr. Gould was led to suppose, but really a specific difference), the very

broad black belt, and the *very* narrow band of scarlet across the abdomen, as may be seen by a comparison of the figure given by Gould in his Monograph, and the one by Vieillot in his *Galérie des Oiseaux*, tom. ii.

"The specimen now before me, of the *Azaræ* of Wagler, was brought from British Guiana by R. H. Schomburgk, Esq., Corr. Memb. Zool. Soc., and presented by him to this Society. In the Earl of Derby's collection there is a specimen of the bird figured by Gould, for which I propose the name of *Pteroglossus flavirostris*, from the uniform colouring of its beak. M. Natterer informs me the latter species is from Rio Janeiro."

July 28.—Professor Owen in the Chair.

Mr. Cuming exhibited some specimens of Quadrupeds, which he had procured during his stay at Malacca; they consisted of two specimens of *Semnopithecus obscurus*, which species, Mr. Cuming states, is subject to great variation in its colouring, one specimen of *Felis marmorata*, and one of *Rhizomys Sinensis*.

Mr. Cuming's notes relating to the last-mentioned animal state that the specimen was a male, and before it was skinned afforded the following dimensions: length from the tip of the nose to the root of the tail, 15 inches; of tail, 6 inches; girth behind the shoulders, 8 inches. The animal lives on the roots of bamboos, under which it burrows; the eyes are very small, and of a black colour.

Mr. Blyth read a paper entitled "An Amended List of the Species of the genus *Ovis**."

The paper was illustrated by numerous drawings; and the horns of the Rass of Pamir, from the Museum of the Royal Asiatic Society, and two pairs of those of the *Shà* of Little Thibet, and one of the Nahoor Sheep, or *Snà* of Great Thibet, brought by G. T. Vigne, Esq., were exhibited.

Mr. Blyth also exhibited various other coloured drawings and specimens collected chiefly in Little Thibet by Mr. Vigne, among the former of which were several figures of the Yak (*Bos grunniens*), a highly-finished portrait of the Jharal† of Mr. Hodgson, another of the *Ovis Vignii*, some sketches of the *Ursus isabellinus*, (or *Syriacus* of Ehrenberg?) and of Buffaloes of the same breed as that of Italy

* The paper will be given in a future number.

† "This animal is mostly known as the *Tehr*, *Thaar*, or *Thar*, to the westward of Nepál, a name applied by Mr. Hodgson to a very different animal, which is usually called *Surow*, or *Surrow*. The first of these names, as suggested to me by Col. H. Smith, is clearly a modification of the Teuton *Thur*, ramifying into *Thier*, *Deer*, &c. &c. &c. *Surow*, or *Surrow*, again passes into various other names, applied to different Himalayan Ruminants; as *Jerow* or *Jerrow* for the *Cervus Aristotelis*, *Serow* and *Chircw* (pronounced with a soft 'Ch') for the *Panthalops chiru*, Hodgson, &c. Then we have *Jharal*, *Goral*, *Goorul*, *Baral*, *Boorul*, *Burrhel*, *Boorhoor*, *Nayoor*, *Nahoor*, and even the Persian *Maral* may be derived from the same root. These names, too, are all severally applied to different animals, whence it often requires much caution in endeavouring to ascertain what species is intended."

broad black belt, and the *very* narrow band of scarlet across the abdomen, as may be seen by a comparison of the figure given by Gould in his Monograph, and the one by Vieillot in his *Galérie des Oiseaux*, tom. ii.

"The specimen now before me, of the *Azaræ* of Wagler, was brought from British Guiana by R. H. Schomburgk, Esq., Corr. Memb. Zool. Soc., and presented by him to this Society. In the Earl of Derby's collection there is a specimen of the bird figured by Gould, for which I propose the name of *Pteroglossus flavirostris*, from the uniform colouring of its beak. M. Natterer informs me the latter species is from Rio Janeiro."

July 28.—Professor Owen in the Chair.

Mr. Cuming exhibited some specimens of Quadrupeds, which he had procured during his stay at Malacca; they consisted of two specimens of *Semnopithecus obscurus*, which species, Mr. Cuming states, is subject to great variation in its colouring, one specimen of *Felis marmorata*, and one of *Rhizomys Sinensis*.

Mr. Cuming's notes relating to the last-mentioned animal state that the specimen was a male, and before it was skinned afforded the following dimensions: length from the tip of the nose to the root of the tail, 15 inches; of tail, 6 inches; girth behind the shoulders, 8 inches. The animal lives on the roots of bamboos, under which it burrows; the eyes are very small, and of a black colour.

Mr. Blyth read a paper entitled "An Amended List of the Species of the genus *Ovis**."

The paper was illustrated by numerous drawings; and the horns of the Rass of Pamir, from the Museum of the Royal Asiatic Society, and two pairs of those of the *Shà* of Little Thibet, and one of the Nahoor Sheep, or *Snà* of Great Thibet, brought by G. T. Vigne, Esq., were exhibited.

Mr. Blyth also exhibited various other coloured drawings and specimens collected chiefly in Little Thibet by Mr. Vigne, among the former of which were several figures of the Yak (*Bos grunniens*), a highly-finished portrait of the Jharal† of Mr. Hodgson, another of the *Ovis Vignii*, some sketches of the *Ursus isabellinus*, (or *Syriacus* of Ehrenberg?) and of Buffaloes of the same breed as that of Italy

* The paper will be given in a future number.

† "This animal is mostly known as the *Tehr*, *Thaar*, or *Thar*, to the westward of Nepál, a name applied by Mr. Hodgson to a very different animal, which is usually called *Surow*, or *Surrow*. The first of these names, as suggested to me by Col. H. Smith, is clearly a modification of the Teuton *Thur*, ramifying into *Thier*, *Deer*, &c. &c. &c. *Surow*, or *Surrow*, again passes into various other names, applied to different Himalayan Ruminants; as *Jerow* or *Jerrow* for the *Cervus Aristotelis*, *Serow* and *Chircw* (pronounced with a soft 'Ch') for the *Panthalops chiru*, Hodgson, &c. Then we have *Jharal*, *Goral*, *Goorul*, *Baral*, *Boorul*, *Burrhel*, *Boorhoor*, *Nayoor*, *Nahoor*, and even the Persian *Maral* may be derived from the same root. These names, too, are all severally applied to different animals, whence it often requires much caution in endeavouring to ascertain what species is intended."

broad black belt, and the *very* narrow band of scarlet across the abdomen, as may be seen by a comparison of the figure given by Gould in his Monograph, and the one by Vieillot in his *Galérie des Oiseaux*, tom. ii.

"The specimen now before me, of the *Azaræ* of Wagler, was brought from British Guiana by R. H. Schomburgk, Esq., Corr. Memb. Zool. Soc., and presented by him to this Society. In the Earl of Derby's collection there is a specimen of the bird figured by Gould, for which I propose the name of *Pteroglossus flavirostris*, from the uniform colouring of its beak. M. Natterer informs me the latter species is from Rio Janeiro."

July 28.—Professor Owen in the Chair.

Mr. Cuming exhibited some specimens of Quadrupeds, which he had procured during his stay at Malacca; they consisted of two specimens of *Semnopithecus obscurus*, which species, Mr. Cuming states, is subject to great variation in its colouring, one specimen of *Felis marmorata*, and one of *Rhizomys Sinensis*.

Mr. Cuming's notes relating to the last-mentioned animal state that the specimen was a male, and before it was skinned afforded the following dimensions: length from the tip of the nose to the root of the tail, 15 inches; of tail, 6 inches; girth behind the shoulders, 8 inches. The animal lives on the roots of bamboos, under which it burrows; the eyes are very small, and of a black colour.

Mr. Blyth read a paper entitled "An Amended List of the Species of the genus *Ovis**."

The paper was illustrated by numerous drawings; and the horns of the Rass of Pamir, from the Museum of the Royal Asiatic Society, and two pairs of those of the *Shà* of Little Thibet, and one of the Nahoor Sheep, or *Snà* of Great Thibet, brought by G. T. Vigne, Esq., were exhibited.

Mr. Blyth also exhibited various other coloured drawings and specimens collected chiefly in Little Thibet by Mr. Vigne, among the former of which were several figures of the Yak (*Bos grunniens*), a highly-finished portrait of the Jharal† of Mr. Hodgson, another of the *Ovis Vignii*, some sketches of the *Ursus isabellinus*, (or *Syriacus* of Ehrenberg?) and of Buffaloes of the same breed as that of Italy

* The paper will be given in a future number.

† "This animal is mostly known as the *Tehr*, *Thaar*, or *Thar*, to the westward of Nepál, a name applied by Mr. Hodgson to a very different animal, which is usually called *Surow*, or *Surrow*. The first of these names, as suggested to me by Col. H. Smith, is clearly a modification of the Teuton *Thur*, ramifying into *Thier*, *Deer*, &c. &c. &c. *Surow*, or *Surrow*, again passes into various other names, applied to different Himalayan Ruminants; as *Jerow* or *Jerrow* for the *Cervus Aristotelis*, *Serow* and *Chircw* (pronounced with a soft 'Ch') for the *Panthalops chiru*, Hodgson, &c. Then we have *Jharal*, *Goral*, *Goorul*, *Baral*, *Boorul*, *Burrhel*, *Boorhoor*, *Nayoor*, *Nahoor*, and even the Persian *Maral* may be derived from the same root. These names, too, are all severally applied to different animals, whence it often requires much caution in endeavouring to ascertain what species is intended."

and Hungary, with the long tail, &c., that were drawn from life at Hurriana. This race was more esteemed for the quantity of milk it yields than the ordinary Indian Buffalo, with long horns, a shorter tail, &c., and is doubtless the same, in the opinion of Mr. Blyth, as the Guzurat race indicated in Dr. Buchanan's 'Journey through Mysore,' &c., which that author, however, observed at Seringapatam. It appears to be scantily diffused throughout India, becoming rarer to the eastward.

Among the specimens was the horn of a Stag, from Kashmir, which Mr. Blyth suspected would prove to be the *C. Wallichii* of Duvaucel, or a closely allied species, a description of which may be expected from Dr. Falconer. The specimen exhibited was 44 inches long, and 8 inches round above burr: it had a brow, a bez, and royal antlers, the bez a foot in length, and longest of the three, and it terminated in a bifurcating crown, precisely as in the *Cervus Elaphus* of the 'Sâl forest of Nepâl, figured by Mr. Hodgson, and supposed by Mr. Ogilby to be *C. Wallichii*, an opinion in which Mr. Blyth coincided. The general character of this horn was intermediate to that of the *Wapiti* and European Stag, but agreeing more nearly with the latter in its kind of granulated surface.

There were also three pairs of horns of the *Markbur* of Kabul, or *Rawacki* of Little Thibet, a race of feral common Goats (in the opinion of Mr. Blyth), remarkable for their large size, and also that of the horns, which last are more or less twisted, varying from the curvature of those of the Koodoo, only in an opposite direction, to the tense spiral of the Caffrarian Impoof's horns, as shown by the specimens then exhibited. It was remarkable that no tame Goats observed by Mr. Vigne in the same countries at all approached this feral race in stature, nor was it known to occur in Persia, or in Nepâl. From the circumstance of the twist alone of the horns of this animal, Mr. Blyth argued that it was not an aboriginal species; for whereas an inward spirature, or at least a tendency to it at the tips, was all but invariably observable throughout the endlessly diversified races of domestic Goats, neither the wild *Capra Ægagrus*, nor any other of the numerous distinct species of wild *Capra* known to Mr. Blyth, exhibited this spirature in the least degree; besides which, it appeared to be alike in no two specimens of the *Markbur*. This animal, however, as he was informed, did not vary in colour, which resembles that of an ordinary brown domestic Goat. A description and figure of it have been published in Mr. Vigne's narrative of his travels in Kabul.

Finally, were exhibited the skull and horns of a magnificent specimen of the Himalayan Ibex, being the second skull and third pair of horns of this species examined by Mr. Blyth, all of which accorded with each other in the several particulars in which they differed from the Swiss Ibex. The animal is very closely allied to the latter, having a similar rudimental beard, and colouring, so far as he could learn; but the horns are much longer, considerably less divergent (a constant distinction in both species), and resemble those of the Egyptian Ibex in curvature: excepting towards the base, they are less massive than the horns of the Swiss Ibex, the middle part being narrower; and

and Hungary, with the long tail, &c., that were drawn from life at Hurriana. This race was more esteemed for the quantity of milk it yields than the ordinary Indian Buffalo, with long horns, a shorter tail, &c., and is doubtless the same, in the opinion of Mr. Blyth, as the Guzurat race indicated in Dr. Buchanan's 'Journey through Mysore,' &c., which that author, however, observed at Seringapatam. It appears to be scantily diffused throughout India, becoming rarer to the eastward.

Among the specimens was the horn of a Stag, from Kashmir, which Mr. Blyth suspected would prove to be the *C. Wallichii* of Duvaucel, or a closely allied species, a description of which may be expected from Dr. Falconer. The specimen exhibited was 44 inches long, and 8 inches round above burr: it had a brow, a bez, and royal antlers, the bez a foot in length, and longest of the three, and it terminated in a bifurcating crown, precisely as in the *Cervus Elaphus* of the 'Sâl forest of Nepâl, figured by Mr. Hodgson, and supposed by Mr. Ogilby to be *C. Wallichii*, an opinion in which Mr. Blyth coincided. The general character of this horn was intermediate to that of the *Wapiti* and European Stag, but agreeing more nearly with the latter in its kind of granulated surface.

There were also three pairs of horns of the *Markbur* of Kabul, or *Rawacki* of Little Thibet, a race of feral common Goats (in the opinion of Mr. Blyth), remarkable for their large size, and also that of the horns, which last are more or less twisted, varying from the curvature of those of the Koodoo, only in an opposite direction, to the tense spiral of the Caffrarian Impoof's horns, as shown by the specimens then exhibited. It was remarkable that no tame Goats observed by Mr. Vigne in the same countries at all approached this feral race in stature, nor was it known to occur in Persia, or in Nepâl. From the circumstance of the twist alone of the horns of this animal, Mr. Blyth argued that it was not an aboriginal species; for whereas an inward spirature, or at least a tendency to it at the tips, was all but invariably observable throughout the endlessly diversified races of domestic Goats, neither the wild *Capra Ægagrus*, nor any other of the numerous distinct species of wild *Capra* known to Mr. Blyth, exhibited this spirature in the least degree; besides which, it appeared to be alike in no two specimens of the *Markbur*. This animal, however, as he was informed, did not vary in colour, which resembles that of an ordinary brown domestic Goat. A description and figure of it have been published in Mr. Vigne's narrative of his travels in Kabul.

Finally, were exhibited the skull and horns of a magnificent specimen of the Himalayan Ibex, being the second skull and third pair of horns of this species examined by Mr. Blyth, all of which accorded with each other in the several particulars in which they differed from the Swiss Ibex. The animal is very closely allied to the latter, having a similar rudimental beard, and colouring, so far as he could learn; but the horns are much longer, considerably less divergent (a constant distinction in both species), and resemble those of the Egyptian Ibex in curvature: excepting towards the base, they are less massive than the horns of the Swiss Ibex, the middle part being narrower; and

and Hungary, with the long tail, &c., that were drawn from life at Hurriana. This race was more esteemed for the quantity of milk it yields than the ordinary Indian Buffalo, with long horns, a shorter tail, &c., and is doubtless the same, in the opinion of Mr. Blyth, as the Guzurat race indicated in Dr. Buchanan's 'Journey through Mysore,' &c., which that author, however, observed at Seringapatam. It appears to be scantily diffused throughout India, becoming rarer to the eastward.

Among the specimens was the horn of a Stag, from Kashmir, which Mr. Blyth suspected would prove to be the *C. Wallichii* of Duvaucel, or a closely allied species, a description of which may be expected from Dr. Falconer. The specimen exhibited was 44 inches long, and 8 inches round above burr: it had a brow, a bez, and royal antlers, the bez a foot in length, and longest of the three, and it terminated in a bifurcating crown, precisely as in the *Cervus Elaphus* of the 'Sâl forest of Nepâl, figured by Mr. Hodgson, and supposed by Mr. Ogilby to be *C. Wallichii*, an opinion in which Mr. Blyth coincided. The general character of this horn was intermediate to that of the *Wapiti* and European Stag, but agreeing more nearly with the latter in its kind of granulated surface.

There were also three pairs of horns of the *Markbur* of Kabul, or *Rawacki* of Little Thibet, a race of feral common Goats (in the opinion of Mr. Blyth), remarkable for their large size, and also that of the horns, which last are more or less twisted, varying from the curvature of those of the Koodoo, only in an opposite direction, to the tense spiral of the Caffrarian Impoof's horns, as shown by the specimens then exhibited. It was remarkable that no tame Goats observed by Mr. Vigne in the same countries at all approached this feral race in stature, nor was it known to occur in Persia, or in Nepâl. From the circumstance of the twist alone of the horns of this animal, Mr. Blyth argued that it was not an aboriginal species; for whereas an inward spirature, or at least a tendency to it at the tips, was all but invariably observable throughout the endlessly diversified races of domestic Goats, neither the wild *Capra Ægagrus*, nor any other of the numerous distinct species of wild *Capra* known to Mr. Blyth, exhibited this spirature in the least degree; besides which, it appeared to be alike in no two specimens of the *Markbur*. This animal, however, as he was informed, did not vary in colour, which resembles that of an ordinary brown domestic Goat. A description and figure of it have been published in Mr. Vigne's narrative of his travels in Kabul.

Finally, were exhibited the skull and horns of a magnificent specimen of the Himalayan Ibex, being the second skull and third pair of horns of this species examined by Mr. Blyth, all of which accorded with each other in the several particulars in which they differed from the Swiss Ibex. The animal is very closely allied to the latter, having a similar rudimental beard, and colouring, so far as he could learn; but the horns are much longer, considerably less divergent (a constant distinction in both species), and resemble those of the Egyptian Ibex in curvature: excepting towards the base, they are less massive than the horns of the Swiss Ibex, the middle part being narrower; and

the tips, which incline more abruptly somewhat forward and inward, are much more attenuated, or drawn out. The splendid pair exhibited, which were in their twelfth year of growth, and all but fully developed, measured $4\frac{1}{4}$ feet over the curvature, and $10\frac{1}{2}$ inches round at base; diverging to 23 inches asunder, measuring outside, at nearly three-fourths of their length from the base, and the tips returning to 16 inches apart, at a distance of 20 inches from the base inside. They are 4 inches deep at base, $2\frac{1}{4}$ inches broad anteriorly, and 2 inches at a foot distance from the base, bearing 26 prominences, and numbering, as before remarked, 12 years of growth, which successively give 16, 7, 5, 4, 5, 4, $3\frac{1}{2}$, $2\frac{1}{2}$, 2, $1\frac{1}{2}$, and the last (incomplete) $\frac{1}{2}$, inches. The extreme length of skull is 12 inches, or $18\frac{1}{2}$ inches over the curves, from tip of intermaxillary to occipital *foramen*; breadth across of orbits posteriorly 7 inches, and total length of bony palate $6\frac{1}{4}$ inches. The dimensions of the largest pair of horns of the Swiss Ibex examined by Mr. Blyth, and which were of the same age as the preceding, are given as follows. Length $3\frac{1}{2}$ feet over the arch, having a span of 2 feet from base to tip inside; the points $2\frac{3}{4}$ feet asunder, and basal circumference $10\frac{3}{4}$ inches; number of prominences above 20, several being comprised within the first 8 inches. They diverge quite regularly, and somewhat spirally, more outward to the tip.

"The Himalayan Ibex," continues Mr. Blyth, "is the *Skyn* or *Skeen*, *Sakeen* or *Sikeen* (as variously written) of different parts of its range, and is numerous, according to Mr. Vigne, in Little Thibet, where it is designated *Skyn*. In Kashmir it bears the name of *Kyl*. Mr. Moorcroft informs us that in Ladakh the male is termed *Skyn*, and the female *l' Danma**: he describes it to inhabit the most inaccessible crags of the mountains; and other authors notice its habits as entirely resembling those of its Alpine congener†. In Kashmir, as I am informed by Mr. Vigne, its *poshm* (or under-fleece of delicate silky wool), which in all the true massive-horned Ibices is amazingly copious in winter, is highly prized, 'that of one large Ibex being equal to the produce of three Shawl Goats, besides being softer and finer. I have some beautiful cloth,' continues that gentleman, 'made from the *poshm* of the Ibex. The animal is of a sepia-brown colour.' It may be further noticed, that in the 'Journal of the Asiatic Society of Bengal,' vol. v. p. 242, it is stated that Major Kennedy had a pair of these animals, stuffed, at Suhatu, in Kunawar. A skull and horns which I saw at Mr. Leadbeater's was received from Nepâl, where, however, the species does not yet appear to have been noticed by Mr. Hodgson. Dr. Falconer has probably named it.

"*Himalaya Ibex*. *Capra Ibici Helvetico simillima, sed cornibus magis prolongatis, semper minùs divergentibus, apicibus attenuatioribus et ad antrorsum abruptiori-curvatis,—sic ut in plurimis speciebus hujus generis, at vix in Capra Ibice verâ.*"

* Travels, i. 311.

† Vide 'Journal of a Trip through Kunawar,' published in the 'Journal of the Asiatic Society of Bengal' for 1839, p. 928.

the tips, which incline more abruptly somewhat forward and inward, are much more attenuated, or drawn out. The splendid pair exhibited, which were in their twelfth year of growth, and all but fully developed, measured $4\frac{1}{4}$ feet over the curvature, and $10\frac{1}{2}$ inches round at base; diverging to 23 inches asunder, measuring outside, at nearly three-fourths of their length from the base, and the tips returning to 16 inches apart, at a distance of 20 inches from the base inside. They are 4 inches deep at base, $2\frac{1}{4}$ inches broad anteriorly, and 2 inches at a foot distance from the base, bearing 26 prominences, and numbering, as before remarked, 12 years of growth, which successively give 16, 7, 5, 4, 5, 4, $3\frac{1}{2}$, $2\frac{1}{2}$, 2, $1\frac{1}{2}$, and the last (incomplete) $\frac{1}{2}$, inches. The extreme length of skull is 12 inches, or $18\frac{1}{2}$ inches over the curves, from tip of intermaxillary to occipital *foramen*; breadth across of orbits posteriorly 7 inches, and total length of bony palate $6\frac{1}{4}$ inches. The dimensions of the largest pair of horns of the Swiss Ibex examined by Mr. Blyth, and which were of the same age as the preceding, are given as follows. Length $3\frac{1}{2}$ feet over the arch, having a span of 2 feet from base to tip inside; the points $2\frac{3}{4}$ feet asunder, and basal circumference $10\frac{3}{4}$ inches; number of prominences above 20, several being comprised within the first 8 inches. They diverge quite regularly, and somewhat spirally, more outward to the tip.

"The Himalayan Ibex," continues Mr. Blyth, "is the *Skyn* or *Skeen*, *Sakeen* or *Sikeen* (as variously written) of different parts of its range, and is numerous, according to Mr. Vigne, in Little Thibet, where it is designated *Skyn*. In Kashmir it bears the name of *Kyl*. Mr. Moorcroft informs us that in Ladakh the male is termed *Skyn*, and the female *l' Danma**: he describes it to inhabit the most inaccessible crags of the mountains; and other authors notice its habits as entirely resembling those of its Alpine congener†. In Kashmir, as I am informed by Mr. Vigne, its *poshm* (or under-fleece of delicate silky wool), which in all the true massive-horned Ibices is amazingly copious in winter, is highly prized, 'that of one large Ibex being equal to the produce of three Shawl Goats, besides being softer and finer. I have some beautiful cloth,' continues that gentleman, 'made from the *poshm* of the Ibex. The animal is of a sepia-brown colour.' It may be further noticed, that in the 'Journal of the Asiatic Society of Bengal,' vol. v. p. 242, it is stated that Major Kennedy had a pair of these animals, stuffed, at Suhatu, in Kunawar. A skull and horns which I saw at Mr. Leadbeater's was received from Nepâl, where, however, the species does not yet appear to have been noticed by Mr. Hodgson. Dr. Falconer has probably named it.

"*Himalaya Ibex*. *Capra Ibici Helvetico simillima, sed cornibus magis prolongatis, semper minùs divergentibus, apicibus attenuatioribus et ad antrorsum abruptiori-curvedis*,—sic ut in plurimis speciebus hujus generis, at vix in *Capra Ibice* verâ."

* Travels, i. 311.

† Vide 'Journal of a Trip through Kunawar,' published in the 'Journal of the Asiatic Society of Bengal' for 1839, p. 928.

the tips, which incline more abruptly somewhat forward and inward, are much more attenuated, or drawn out. The splendid pair exhibited, which were in their twelfth year of growth, and all but fully developed, measured $4\frac{1}{4}$ feet over the curvature, and $10\frac{1}{2}$ inches round at base; diverging to 23 inches asunder, measuring outside, at nearly three-fourths of their length from the base, and the tips returning to 16 inches apart, at a distance of 20 inches from the base inside. They are 4 inches deep at base, $2\frac{1}{4}$ inches broad anteriorly, and 2 inches at a foot distance from the base, bearing 26 prominences, and numbering, as before remarked, 12 years of growth, which successively give 16, 7, 5, 4, 5, 4, $3\frac{1}{2}$, $2\frac{1}{2}$, 2, $1\frac{1}{2}$, and the last (incomplete) $\frac{1}{2}$, inches. The extreme length of skull is 12 inches, or $18\frac{1}{2}$ inches over the curves, from tip of intermaxillary to occipital *foramen*; breadth across of orbits posteriorly 7 inches, and total length of bony palate $6\frac{1}{4}$ inches. The dimensions of the largest pair of horns of the Swiss Ibex examined by Mr. Blyth, and which were of the same age as the preceding, are given as follows. Length $3\frac{1}{2}$ feet over the arch, having a span of 2 feet from base to tip inside; the points $2\frac{3}{4}$ feet asunder, and basal circumference $10\frac{3}{4}$ inches; number of prominences above 20, several being comprised within the first 8 inches. They diverge quite regularly, and somewhat spirally, more outward to the tip.

"The Himalayan Ibex," continues Mr. Blyth, "is the *Skyn* or *Skeen*, *Sakeen* or *Sikeen* (as variously written) of different parts of its range, and is numerous, according to Mr. Vigne, in Little Thibet, where it is designated *Skyn*. In Kashmir it bears the name of *Kyl*. Mr. Moorcroft informs us that in Ladakh the male is termed *Skyn*, and the female *l' Danma**: he describes it to inhabit the most inaccessible crags of the mountains; and other authors notice its habits as entirely resembling those of its Alpine congener†. In Kashmir, as I am informed by Mr. Vigne, its *poshm* (or under-fleece of delicate silky wool), which in all the true massive-horned Ibices is amazingly copious in winter, is highly prized, 'that of one large Ibex being equal to the produce of three Shawl Goats, besides being softer and finer. I have some beautiful cloth,' continues that gentleman, 'made from the *poshm* of the Ibex. The animal is of a sepia-brown colour.' It may be further noticed, that in the 'Journal of the Asiatic Society of Bengal,' vol. v. p. 242, it is stated that Major Kennedy had a pair of these animals, stuffed, at Suhatu, in Kunawar. A skull and horns which I saw at Mr. Leadbeater's was received from Nepâl, where, however, the species does not yet appear to have been noticed by Mr. Hodgson. Dr. Falconer has probably named it.

"*Himalaya Ibex*. *Capra Ibici Helvetico simillima, sed cornibus magis prolongatis, semper minùs divergentibus, apicibus attenuatioribus et ad antrorsum abruptiori-curvedis*,—sic ut in plurimis speciebus hujus generis, at vix in *Capra Ibice* verâ."

* Travels, i. 311.

† Vide 'Journal of a Trip through Kunawar,' published in the 'Journal of the Asiatic Society of Bengal' for 1839, p. 928.

ROYAL BOTANICAL SOCIETY OF EDINBURGH.

The Society met on Thursday evening (March 11th) in the Royal Institution, Dr. Greville in the chair.

Mr. Edward Forbes read a communication on the specific value of the appendages of the anthers in the genus *Viola*.

Mr. Forbes commenced by stating, that in some plants a particular form of the leaf or other appendage might be the same in all the species, while in other plants this form might only be similar in a few species. In the case of the genus *Viola*, the antherine appendages or nectaries have generally been regarded as of generic importance only. By comparing the nectary of a Pansey with that of a Dog-violet, a difference will be observed of specific, or at least sectional importance. In order to ascertain the value of this character, he had examined above seventy species of Violets, chiefly from the herbarium of Dr. Greville. He found three different forms of nectaries. The most common is lancet-shaped, which prevails among the allies of *Viola canina* and *Viola odorata*. The next is of a linear form, and prevails chiefly amongst the Pansies, *V. lutea*, etc. The third is rotund, a rare form, but which may be seen in the *Viola palustris*. These nectaries are to be found in the spur of the flower, which varies in form according to the shape of the nectary. When the nectary is lancet-shaped, the spur is generally thick in proportion to its length, and very blunt, being shortest in those species which have the nectaries broadest. The rotund nectary is generally associated with a short round spur, and the linear with a slender spur, often of great comparative length. The colours of Violets have also some relation to the forms of the nectaries. In this genus, blue, yellow, purple and white are the colours seen. The blue may again be divided into purple-blue and sky-blue, each passing into white. The purple may also pass into white, but the sky-blue never does. These distinctions are of importance in the investigation of nearly allied species, such as *Viola canina* and *Viola montana*. In the one case the yellow passes into pink, and in the other into purple. White is rarely the normal colour of a Violet. The lancet-shaped nectary is chiefly associated with blue flowers, sometimes with the yellow passing into white; but never with the yellow passing into purple, they having always linear nectaries. The Violets which are normally white derived from blue have always lanceolate or rounded appendages. Mr. Forbes also pointed out the relation of the nectary to the leaf, to the bractea or stipula, and also to the stem. By considering these, along with the colour and geographical distribution, he thought a very natural arrangement of this extensive genus might be made, and which would greatly facilitate the distinction of species.

The next paper was upon the botanical characters of the British Oaks, by Dr. Greville. The author stated that he had paid great attention to the distinctive characters of the oaks for the last three years, and his investigations had led him to believe that the usual specific distinctions were not correct. Thus he found that the *Quercus sessiliflora* in one situation might have a very short flower-stalk, and in another a very long one; and the same was the case

ROYAL BOTANICAL SOCIETY OF EDINBURGH.

The Society met on Thursday evening (March 11th) in the Royal Institution, Dr. Greville in the chair.

Mr. Edward Forbes read a communication on the specific value of the appendages of the anthers in the genus *Viola*.

Mr. Forbes commenced by stating, that in some plants a particular form of the leaf or other appendage might be the same in all the species, while in other plants this form might only be similar in a few species. In the case of the genus *Viola*, the antherine appendages or nectaries have generally been regarded as of generic importance only. By comparing the nectary of a Pansey with that of a Dog-violet, a difference will be observed of specific, or at least sectional importance. In order to ascertain the value of this character, he had examined above seventy species of Violets, chiefly from the herbarium of Dr. Greville. He found three different forms of nectaries. The most common is lancet-shaped, which prevails among the allies of *Viola canina* and *Viola odorata*. The next is of a linear form, and prevails chiefly amongst the Pansies, *V. lutea*, etc. The third is rotund, a rare form, but which may be seen in the *Viola palustris*. These nectaries are to be found in the spur of the flower, which varies in form according to the shape of the nectary. When the nectary is lancet-shaped, the spur is generally thick in proportion to its length, and very blunt, being shortest in those species which have the nectaries broadest. The rotund nectary is generally associated with a short round spur, and the linear with a slender spur, often of great comparative length. The colours of Violets have also some relation to the forms of the nectaries. In this genus, blue, yellow, purple and white are the colours seen. The blue may again be divided into purple-blue and sky-blue, each passing into white. The purple may also pass into white, but the sky-blue never does. These distinctions are of importance in the investigation of nearly allied species, such as *Viola canina* and *Viola montana*. In the one case the yellow passes into pink, and in the other into purple. White is rarely the normal colour of a Violet. The lancet-shaped nectary is chiefly associated with blue flowers, sometimes with the yellow passing into white; but never with the yellow passing into purple, they having always linear nectaries. The Violets which are normally white derived from blue have always lanceolate or rounded appendages. Mr. Forbes also pointed out the relation of the nectary to the leaf, to the bractea or stipula, and also to the stem. By considering these, along with the colour and geographical distribution, he thought a very natural arrangement of this extensive genus might be made, and which would greatly facilitate the distinction of species.

The next paper was upon the botanical characters of the British Oaks, by Dr. Greville. The author stated that he had paid great attention to the distinctive characters of the oaks for the last three years, and his investigations had led him to believe that the usual specific distinctions were not correct. Thus he found that the *Quercus sessiliflora* in one situation might have a very short flower-stalk, and in another a very long one; and the same was the case

ROYAL BOTANICAL SOCIETY OF EDINBURGH.

The Society met on Thursday evening (March 11th) in the Royal Institution, Dr. Greville in the chair.

Mr. Edward Forbes read a communication on the specific value of the appendages of the anthers in the genus *Viola*.

Mr. Forbes commenced by stating, that in some plants a particular form of the leaf or other appendage might be the same in all the species, while in other plants this form might only be similar in a few species. In the case of the genus *Viola*, the antherine appendages or nectaries have generally been regarded as of generic importance only. By comparing the nectary of a Pansey with that of a Dog-violet, a difference will be observed of specific, or at least sectional importance. In order to ascertain the value of this character, he had examined above seventy species of Violets, chiefly from the herbarium of Dr. Greville. He found three different forms of nectaries. The most common is lancet-shaped, which prevails among the allies of *Viola canina* and *Viola odorata*. The next is of a linear form, and prevails chiefly amongst the Pansies, *V. lutea*, etc. The third is rotund, a rare form, but which may be seen in the *Viola palustris*. These nectaries are to be found in the spur of the flower, which varies in form according to the shape of the nectary. When the nectary is lancet-shaped, the spur is generally thick in proportion to its length, and very blunt, being shortest in those species which have the nectaries broadest. The rotund nectary is generally associated with a short round spur, and the linear with a slender spur, often of great comparative length. The colours of Violets have also some relation to the forms of the nectaries. In this genus, blue, yellow, purple and white are the colours seen. The blue may again be divided into purple-blue and sky-blue, each passing into white. The purple may also pass into white, but the sky-blue never does. These distinctions are of importance in the investigation of nearly allied species, such as *Viola canina* and *Viola montana*. In the one case the yellow passes into pink, and in the other into purple. White is rarely the normal colour of a Violet. The lancet-shaped nectary is chiefly associated with blue flowers, sometimes with the yellow passing into white; but never with the yellow passing into purple, they having always linear nectaries. The Violets which are normally white derived from blue have always lanceolate or rounded appendages. Mr. Forbes also pointed out the relation of the nectary to the leaf, to the bractea or stipula, and also to the stem. By considering these, along with the colour and geographical distribution, he thought a very natural arrangement of this extensive genus might be made, and which would greatly facilitate the distinction of species.

The next paper was upon the botanical characters of the British Oaks, by Dr. Greville. The author stated that he had paid great attention to the distinctive characters of the oaks for the last three years, and his investigations had led him to believe that the usual specific distinctions were not correct. Thus he found that the *Quercus sessiliflora* in one situation might have a very short flower-stalk, and in another a very long one; and the same was the case

with other species, so that the distinction here indicated by the name is incorrect. The difference between *Quercus Robur* and *sessiliflora* could not be ascertained by the botanical characters, but it was well known that a great difference existed between the wood of these two species. The former was called the white oak, and the latter the red, and in some districts the white was considered of double the value of the red as a timber. He offered these observations merely to draw the attention of botanists to this genus, and to endeavour to find some new characters by which they might be distinguished. It was of great value to this country that the best oak should always be planted, and he hoped that some characters would be ascertained by which to distinguish them. Dr. Greville had not examined specimens from any district south of Cumberland and Westmoreland. The terms "red and white oak" have been applied evidently by various authors, sometimes to one, sometimes to the other; and the redness described by some writers is evidently a disease, not a specific difference, in the timber. The whole subject requires a careful and strict examination.

Communications were also read from Mr. George Gardner, dated Rio de Janeiro, December 3rd, 1840, with some account of his recent collections in Brazil; and a notice of *Lecanora rubra* (of which specimens were presented), found near Richmond, Yorkshire, by Mr. James Ward.

Thursday being the night of the anniversary, a large number of the members and their friends sat down to supper in the Hopetoun Rooms, Professor Graham in the chair, and Dr. Neill acting as croupier for Dr. Christison, who was absent from indisposition.

WERNERIAN NATURAL HISTORY SOCIETY OF EDINBURGH.

At the meeting of this Society, held on the 20th ult., Professor Traill read a Memoir of the Life and Writings of the Rev. George Low, minister of Birsay, in Orkney, author of 'Fauna Orcadensis,' and the friend and correspondent of Sir Joseph Banks and Mr. Pennant. This memoir will appear in the next part of the Society's Transactions.

At the same meeting, Mr. Goodsir described a new species of *Gymnorhynchus*, and exhibited specimens and drawings of the animal. The most interesting circumstance in the history of this Entozoon is the manner in which it is enclosed in a firm cyst, although armed with powerful toothed jaws.

At the meeting held on the 6th of March, a paper was read by Mr. Torrie, on the recent 'Travels in Turkey' of Dr. Boué, the geologist; in which a summary was given of the observations and discoveries made by him during the last four years in the geography, geology, botany and zoology of the more remote portions of that comparatively little-known country.

At the same meeting, a communication was read by the Secretary from Professor Fleming, of King's College, Aberdeen, on a new species of the Ray family, or Skate tribe, discovered by him last summer on the coast of Aberdeen, and which he proposes to place

with other species, so that the distinction here indicated by the name is incorrect. The difference between *Quercus Robur* and *sessiliflora* could not be ascertained by the botanical characters, but it was well known that a great difference existed between the wood of these two species. The former was called the white oak, and the latter the red, and in some districts the white was considered of double the value of the red as a timber. He offered these observations merely to draw the attention of botanists to this genus, and to endeavour to find some new characters by which they might be distinguished. It was of great value to this country that the best oak should always be planted, and he hoped that some characters would be ascertained by which to distinguish them. Dr. Greville had not examined specimens from any district south of Cumberland and Westmoreland. The terms "red and white oak" have been applied evidently by various authors, sometimes to one, sometimes to the other; and the redness described by some writers is evidently a disease, not a specific difference, in the timber. The whole subject requires a careful and strict examination.

Communications were also read from Mr. George Gardner, dated Rio de Janeiro, December 3rd, 1840, with some account of his recent collections in Brazil; and a notice of *Lecanora rubra* (of which specimens were presented), found near Richmond, Yorkshire, by Mr. James Ward.

Thursday being the night of the anniversary, a large number of the members and their friends sat down to supper in the Hopetoun Rooms, Professor Graham in the chair, and Dr. Neill acting as croupier for Dr. Christison, who was absent from indisposition.

WERNERIAN NATURAL HISTORY SOCIETY OF EDINBURGH.

At the meeting of this Society, held on the 20th ult., Professor Traill read a Memoir of the Life and Writings of the Rev. George Low, minister of Birsay, in Orkney, author of 'Fauna Orcadensis,' and the friend and correspondent of Sir Joseph Banks and Mr. Pennant. This memoir will appear in the next part of the Society's Transactions.

At the same meeting, Mr. Goodsir described a new species of *Gymnorhynchus*, and exhibited specimens and drawings of the animal. The most interesting circumstance in the history of this Entozoon is the manner in which it is enclosed in a firm cyst, although armed with powerful toothed jaws.

At the meeting held on the 6th of March, a paper was read by Mr. Torrie, on the recent 'Travels in Turkey' of Dr. Boué, the geologist; in which a summary was given of the observations and discoveries made by him during the last four years in the geography, geology, botany and zoology of the more remote portions of that comparatively little-known country.

At the same meeting, a communication was read by the Secretary from Professor Fleming, of King's College, Aberdeen, on a new species of the Ray family, or Skate tribe, discovered by him last summer on the coast of Aberdeen, and which he proposes to place

with other species, so that the distinction here indicated by the name is incorrect. The difference between *Quercus Robur* and *sessiliflora* could not be ascertained by the botanical characters, but it was well known that a great difference existed between the wood of these two species. The former was called the white oak, and the latter the red, and in some districts the white was considered of double the value of the red as a timber. He offered these observations merely to draw the attention of botanists to this genus, and to endeavour to find some new characters by which they might be distinguished. It was of great value to this country that the best oak should always be planted, and he hoped that some characters would be ascertained by which to distinguish them. Dr. Greville had not examined specimens from any district south of Cumberland and Westmoreland. The terms "red and white oak" have been applied evidently by various authors, sometimes to one, sometimes to the other; and the redness described by some writers is evidently a disease, not a specific difference, in the timber. The whole subject requires a careful and strict examination.

Communications were also read from Mr. George Gardner, dated Rio de Janeiro, December 3rd, 1840, with some account of his recent collections in Brazil; and a notice of *Lecanora rubra* (of which specimens were presented), found near Richmond, Yorkshire, by Mr. James Ward.

Thursday being the night of the anniversary, a large number of the members and their friends sat down to supper in the Hopetoun Rooms, Professor Graham in the chair, and Dr. Neill acting as croupier for Dr. Christison, who was absent from indisposition.

WERNERIAN NATURAL HISTORY SOCIETY OF EDINBURGH.

At the meeting of this Society, held on the 20th ult., Professor Traill read a Memoir of the Life and Writings of the Rev. George Low, minister of Birsay, in Orkney, author of 'Fauna Orcadensis,' and the friend and correspondent of Sir Joseph Banks and Mr. Pennant. This memoir will appear in the next part of the Society's Transactions.

At the same meeting, Mr. Goodsir described a new species of *Gymnorhynchus*, and exhibited specimens and drawings of the animal. The most interesting circumstance in the history of this Entozoon is the manner in which it is enclosed in a firm cyst, although armed with powerful toothed jaws.

At the meeting held on the 6th of March, a paper was read by Mr. Torrie, on the recent 'Travels in Turkey' of Dr. Boué, the geologist; in which a summary was given of the observations and discoveries made by him during the last four years in the geography, geology, botany and zoology of the more remote portions of that comparatively little-known country.

At the same meeting, a communication was read by the Secretary from Professor Fleming, of King's College, Aberdeen, on a new species of the Ray family, or Skate tribe, discovered by him last summer on the coast of Aberdeen, and which he proposes to place

under a new generic title by the name of *Cheiroptera abredonensis*. Illustrative drawings of the fish were exhibited. This skate was taken in July last, and was about eighteen inches in length. From the drawings it appeared to belong to the genus *Cephaloptera*; but we hope the Professor will lose no time in publishing a figure and description of this interesting fish.

MISCELLANEOUS.

Mr. Gray's 'Genera of Birds.'—In my review of Mr. Gray's work I accidentally omitted to state that the various errors in the orthography of the generic names there pointed out are not attributable to Mr. Gray, but to the respective authors from whose works he adopted those names.—H. E. STRICKLAND.

Birds of Kent.—Our correspondent Mr. Stephen Mummery, of Bath road, Margate, informs us of the capture in a wood near Canterbury of a species of Cuckoo, of which he has sent a description, which we must examine more at leisure. He is engaged in preparing a list of birds found in Kent, arranged under heads, as Residents, Periodical Visitants and Stragglers, with their times of arrival and departure, and places where found.

METEOROLOGICAL OBSERVATIONS FOR FEB. 1841.

Chiswick.—Feb. 1. Snowing. 2. Snow-showers. 3. Frosty: dry and cold: very severe frost at night. 4. Frosty: overcast. 5. Dry cold haze: windy at night. 6. Boisterous. 7. Boisterous: hazy and cold. 8—11. Hazy and cold. 12. Dense fog: very fine: rain. 13. Overcast: rain. 14. Rain: cloudy. 15. Cloudy: slight rain. 16, 17. Hazy. 18. Fine. 19. Rain: cloudy and fine. 20. Cloudy and fine: rain. 21. Overcast and fine. 22. Dense fog. 23. Hazy: rain. 24. Hazy and cold. 25. Cloudy and cold: rain. 26. Rain. 27. Cloudy: rain. 28. Very clear: cloudy and fine.

Boston.—Feb. 1. Cloudy: snow A.M. and P.M. 2. Fine: snow early A.M.: snow P.M. 3. Cloudy: snow early A.M. and P.M. 4, 5. Cloudy. 6, 7. Stormy. 8. Cloudy: snow P.M. 9, 10. Cloudy. 11—13. Cloudy: rain P.M. 14. Cloudy. 15. Cloudy: rain P.M. 16. Cloudy. 17. Rain. 18, 19. Cloudy. 20, 21. Fine. 22, 23. Foggy. 24. Rain. 25. Cloudy: rain P.M. 26. Rain: rain P.M. 27. Rain. 28. Fine.

Applegarth Manse, Dumfries-shire.—Feb. 1, 2. Sprinkling of snow: frost P.M. 3. Snow-showers: frost. 4. Frost: fair but cloudy. 5. Frost: sprinkling of snow. 6. Frost: occasional snow-showers. 7. Frost: severe and cold. 8, 9. Frost: cold and withering. 10. Frost, but giving way. 11. Thaw and heavy rain: sleet. 12. Fog: rain: fine thaw. 13. Rain all day. 14. Rain in the evening: mild. 15. Rain all day. 16, 17. Fair but cloudy. 18. Wet all day. 19. Clear and cold. 20. Fine. 21, 22. Fine, but cloudy. 23. Rain A.M.: moist P.M. 24. Clear and cold. 25. Cloudy and threatening rain. 26. Cloudy with high wind. 27. Frost in the morning. 28. Frost in the morning with snow on the hills.

Sun shone out 19 days. Rain fell 8 days. Frost 11 days. Snow 6 days.

Wind north 1 day. North-east 8 days. East-north-east 2 days. East 2 days. East-south-east 1 day. South-east 4 days. South 4 days. South-west 2 days. West 1 day. North-west 1 day. North-north-west 2 days.

Calm 6 days. Moderate 11 days. Brisk 4 days. Strong breeze 4 days. Boisterous 3 days.

Mean temperature of the month 36°·50

Mean temperature of February 1840 36·78

Mean temperature of spring-water 42·60

Mean temperature of spring-water, Feb. 1840 44·16

under a new generic title by the name of *Cheiroptera abredonensis*. Illustrative drawings of the fish were exhibited. This skate was taken in July last, and was about eighteen inches in length. From the drawings it appeared to belong to the genus *Cephaloptera*; but we hope the Professor will lose no time in publishing a figure and description of this interesting fish.

MISCELLANEOUS.

Mr. Gray's 'Genera of Birds.'—In my review of Mr. Gray's work I accidentally omitted to state that the various errors in the orthography of the generic names there pointed out are not attributable to Mr. Gray, but to the respective authors from whose works he adopted those names.—H. E. STRICKLAND.

Birds of Kent.—Our correspondent Mr. Stephen Mummery, of Bath road, Margate, informs us of the capture in a wood near Canterbury of a species of Cuckoo, of which he has sent a description, which we must examine more at leisure. He is engaged in preparing a list of birds found in Kent, arranged under heads, as Residents, Periodical Visitants and Stragglers, with their times of arrival and departure, and places where found.

METEOROLOGICAL OBSERVATIONS FOR FEB. 1841.

Chiswick.—Feb. 1. Snowing. 2. Snow-showers. 3. Frosty: dry and cold: very severe frost at night. 4. Frosty: overcast. 5. Dry cold haze: windy at night. 6. Boisterous. 7. Boisterous: hazy and cold. 8—11. Hazy and cold. 12. Dense fog: very fine: rain. 13. Overcast: rain. 14. Rain: cloudy. 15. Cloudy: slight rain. 16, 17. Hazy. 18. Fine. 19. Rain: cloudy and fine. 20. Cloudy and fine: rain. 21. Overcast and fine. 22. Dense fog. 23. Hazy: rain. 24. Hazy and cold. 25. Cloudy and cold: rain. 26. Rain. 27. Cloudy: rain. 28. Very clear: cloudy and fine.

Boston.—Feb. 1. Cloudy: snow A.M. and P.M. 2. Fine: snow early A.M.: snow P.M. 3. Cloudy: snow early A.M. and P.M. 4, 5. Cloudy. 6, 7. Stormy. 8. Cloudy: snow P.M. 9, 10. Cloudy. 11—13. Cloudy: rain P.M. 14. Cloudy. 15. Cloudy: rain P.M. 16. Cloudy. 17. Rain. 18, 19. Cloudy. 20, 21. Fine. 22, 23. Foggy. 24. Rain. 25. Cloudy: rain P.M. 26. Rain: rain P.M. 27. Rain. 28. Fine.

Applegarth Manse, Dumfries-shire.—Feb. 1, 2. Sprinkling of snow: frost P.M. 3. Snow-showers: frost. 4. Frost: fair but cloudy. 5. Frost: sprinkling of snow. 6. Frost: occasional snow-showers. 7. Frost: severe and cold. 8, 9. Frost: cold and withering. 10. Frost, but giving way. 11. Thaw and heavy rain: sleet. 12. Fog: rain: fine thaw. 13. Rain all day. 14. Rain in the evening: mild. 15. Rain all day. 16, 17. Fair but cloudy. 18. Wet all day. 19. Clear and cold. 20. Fine. 21, 22. Fine, but cloudy. 23. Rain A.M.: moist P.M. 24. Clear and cold. 25. Cloudy and threatening rain. 26. Cloudy with high wind. 27. Frost in the morning. 28. Frost in the morning with snow on the hills.

Sun shone out 19 days. Rain fell 8 days. Frost 11 days. Snow 6 days.

Wind north 1 day. North-east 8 days. East-north-east 2 days. East 2 days. East-south-east 1 day. South-east 4 days. South 4 days. South-west 2 days. West 1 day. North-west 1 day. North-north-west 2 days.

Calm 6 days. Moderate 11 days. Brisk 4 days. Strong breeze 4 days. Boisterous 3 days.

Mean temperature of the month 36°·50

Mean temperature of February 1840 36·78

Mean temperature of spring-water 42·60

Mean temperature of spring-water, Feb. 1840 44·16

under a new generic title by the name of *Cheiroptera abredonensis*. Illustrative drawings of the fish were exhibited. This skate was taken in July last, and was about eighteen inches in length. From the drawings it appeared to belong to the genus *Cephaloptera*; but we hope the Professor will lose no time in publishing a figure and description of this interesting fish.

MISCELLANEOUS.

Mr. Gray's 'Genera of Birds.'—In my review of Mr. Gray's work I accidentally omitted to state that the various errors in the orthography of the generic names there pointed out are not attributable to Mr. Gray, but to the respective authors from whose works he adopted those names.—H. E. STRICKLAND.

Birds of Kent.—Our correspondent Mr. Stephen Mummery, of Bath road, Margate, informs us of the capture in a wood near Canterbury of a species of Cuckoo, of which he has sent a description, which we must examine more at leisure. He is engaged in preparing a list of birds found in Kent, arranged under heads, as Residents, Periodical Visitants and Stragglers, with their times of arrival and departure, and places where found.

METEOROLOGICAL OBSERVATIONS FOR FEB. 1841.

Chiswick.—Feb. 1. Snowing. 2. Snow-showers. 3. Frosty: dry and cold: very severe frost at night. 4. Frosty: overcast. 5. Dry cold haze: windy at night. 6. Boisterous. 7. Boisterous: hazy and cold. 8—11. Hazy and cold. 12. Dense fog: very fine: rain. 13. Overcast: rain. 14. Rain: cloudy. 15. Cloudy: slight rain. 16, 17. Hazy. 18. Fine. 19. Rain: cloudy and fine. 20. Cloudy and fine: rain. 21. Overcast and fine. 22. Dense fog. 23. Hazy: rain. 24. Hazy and cold. 25. Cloudy and cold: rain. 26. Rain. 27. Cloudy: rain. 28. Very clear: cloudy and fine.

Boston.—Feb. 1. Cloudy: snow A.M. and P.M. 2. Fine: snow early A.M.: snow P.M. 3. Cloudy: snow early A.M. and P.M. 4, 5. Cloudy. 6, 7. Stormy. 8. Cloudy: snow P.M. 9, 10. Cloudy. 11—13. Cloudy: rain P.M. 14. Cloudy. 15. Cloudy: rain P.M. 16. Cloudy. 17. Rain. 18, 19. Cloudy. 20, 21. Fine. 22, 23. Foggy. 24. Rain. 25. Cloudy: rain P.M. 26. Rain: rain P.M. 27. Rain. 28. Fine.

Applegarth Manse, Dumfries-shire.—Feb. 1, 2. Sprinkling of snow: frost P.M. 3. Snow-showers: frost. 4. Frost: fair but cloudy. 5. Frost: sprinkling of snow. 6. Frost: occasional snow-showers. 7. Frost: severe and cold. 8, 9. Frost: cold and withering. 10. Frost, but giving way. 11. Thaw and heavy rain: sleet. 12. Fog: rain: fine thaw. 13. Rain all day. 14. Rain in the evening: mild. 15. Rain all day. 16, 17. Fair but cloudy. 18. Wet all day. 19. Clear and cold. 20. Fine. 21, 22. Fine, but cloudy. 23. Rain A.M.: moist P.M. 24. Clear and cold. 25. Cloudy and threatening rain. 26. Cloudy with high wind. 27. Frost in the morning. 28. Frost in the morning with snow on the hills.

Sun shone out 19 days. Rain fell 8 days. Frost 11 days. Snow 6 days.

Wind north 1 day. North-east 8 days. East-north-east 2 days. East 2 days. East-south-east 1 day. South-east 4 days. South 4 days. South-west 2 days. West 1 day. North-west 1 day. North-north-west 2 days.

Calm 6 days. Moderate 11 days. Brisk 4 days. Strong breeze 4 days. Boisterous 3 days.

Mean temperature of the month	36°·50
Mean temperature of February 1840	36 ·78
Mean temperature of spring-water	42 ·60
Mean temperature of spring-water, Feb. 1840	44 ·16